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THE PRINCE'S GUIDE BOOK.

The Times of India

HANDBOOK OF HINDUSTAN.

BEING A SHORT ACCOUNT OF THE GEOGRAPHY, HISTORY, PRESENT ADMINISTRATION, NATIVE STATES, SPORTS, AND PLACES OF INTEREST IN INDIA.

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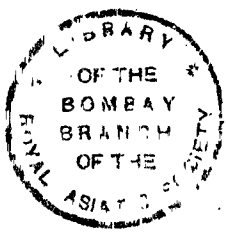

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PREFACE.

THE following pages will, it is hoped, furnish a bird's-eye view of the natural, historical, and political characteristics of our Indian Empire. The subject is so great that the compiler, with a very limited space at his command, has only been able to indicate its salient features; but he has everywhere endeavoured to direct the reader to sources that afford a more exhaustive treatment, and to which he himself is indebted for the materials of his sketch. The approaching visit of His Royal Highness the Prince of Wales will probably bring an influx of visitors to the East, and will certainly direct the attention of the English people generally to this country; it is thought, therefore, that the present is an opportune moment for the publication of a brief and popular account of its physical aspect, its products, people, and government, together with those more particular instructions and statistics, for the use of travellers, that are commonly found in the best guide-books.

DELHI, 24*th July* 1875.

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The Times of India

HANDBOOK OF HINDUSTAN.

CHAPTER I.

NATURAL FEATURES.

1.—Geography.

Astronomical position.

India* lies between 8° and 35° N. latitude, and 67° and 97° E. longitude.

Dimensions.

It† measures about 1,900 miles in length, from Cashmere to Cape Comorin; and its breadth, from the mouth of the Indus to the mountains east of the Brahmaputra, amounts to considerably more than 1,500 miles. The superficial extent is estimated at 1,287,483 square miles. The sea-board presents a line of 3,622 miles in length.

Surveys.

Major Rennell‡ may be considered the Father of Indian Geography. His labours extended over a period of nineteen years, and resulted in a survey covering an area of 900 miles in length by about 300 in breadth, from the eastern confines of Bengal to Agra, and from the foot of the Himalayas to Calpi. He was succeeded by other surveyors, many of whom carried on their labours while serving with armies in the field; and eventually a number of general maps was completed, which superseded the

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* *Malte-Brun and Balbi*, ed. of 1859, p. 679.—Hamilton's *Description of Hindustan*, Introduction, p. 17.

† Elphinstone's History of India, 5th ed., 1866.

‡ *Statement of the Moral and Material Progress of India*, C. R. Markham, 1874.

first modern map of India, that of the French geographer D'Anville, published in 1755.

Triangulation.

These surveys, however, had been carried on with the chain, corrected from time to time by observations for latitude and longitude; and it was not until 1802 that Major Lambton began the trigonometrical survey of India by measuring a base line near Madras, the point of departure being the observatory. He then carried a series of triangles across the peninsula, ascertaining a second base line at Bangalore. The measurement of an arc of the meridian (the Great Arc Series) southward from Bangalore to Cape Comorin, and northward in the direction of the Himalayas, was then commenced. Since then, the work has been steadily progressing under the able guidance successively of Everest, Waugh, and Colonel Thuillier, the present Surveyor-General; and the grand network of triangulation is now approaching completion.

Topographical Surveys.

This* network forms the basis of topographical and other surveys, and is accompanied by levelling, together with tidal, pendulum, and other observations. Colin Mackenzie was the founder of topographical surveys in India, based on triangulation. The most interesting topographical surveys executed in Sir Andrew Waugh's time were those of the highland country of the Sind Sagar Doab by Colonel Robinson, and of Cashmere and Ladakh by Major Montgomerie. There are now seven topographical survey parties in the field. The aggregate result of topographical and revenue surveys from 1847 to 1873 is 743,802 square miles, at a cost of £2,002,803.

Boundaries.

On the north the Himalayas separate India from Tartary and Thibet; on the west the Suleiman and Hala mountains, and the Arabian Sea, are the boundaries; the south-eastern and southern Coasts are washed by the waters of the Bay of Bengal; and beyond the eastern frontier lies the kingdom of Burmah.

Treaties determining Frontier.

Treaties† and engagements with the Confederate

* Markham.

† Full information regarding these is to be found in the great work of Mr. Aitchison on the Treaties, Engagements, and Sunnuds; and in Mr. Lepel Griffin's *Rajahs of the Panjab*, Lahore, 1870.

Chiefs of Khelat, the Amir of Afghanistan and his feudatories, the Maharajah of Cashmere, the petty Chiefs of the Satlej districts, Kumaon and Garhwal, the ruler of Nepal, the Rajah of Sikhim, the Deb Rajah of Bhutan, the wild tribes of the hills between Assam and Burmah, and the Manipur Rajah determine the marches of British India on the land side.

General aspect.

Within* these boundaries is found almost every natural feature or description of landscape which the world affords. Mountain ranges, comprising the highest peaks in the world, the abode of eternal snows, broad plains fertilised by mighty rivers and bathed in the intensest sunshine, sandy deserts, impenetrable forests, undulating steppes, and elevated plateaux, present us with almost an epitome of the whole earth. For a more particular survey of this vast scene, it will be convenient to view it under the following natural divisions:—1st, the Himalayan region; 2nd, Hindustan Proper, containing the basins of the Indus and Ganges, the Great Desert, and the high tract of Central India; 3rd, the Deckan beyond the Vindhya mountains, comprising the valleys of the Narbadda and Tapti, and a high table-land supported by the Western and Eastern Ghâts; 4th, the valley of the Brahmaputra.

Natural divisions.

The Himalayan region.

The† Alpine region of Hindustan, which forms its northern barrier, is a strip of land not exceeding 150 miles in breadth. It is composed of a succession of vast mountains rising far above the level of perpetual snow. These frozen deserts consist in many places of rugged and bare rocks shooting aloft into the sky, and divided by deep ravines, very steep and often ending in dark chasms, which are sometimes wooded, but as often bare rocks, several hundred feet in height, with little more space between them than has been worn by the violence of the torrents. Here is concentrated all that is sublime in the scenery or

* Chambers' Encyclopædia.

† The *Encyclopædia Britannica*, 8th ed., vol. xi., p. 445. For fuller information on this region, the reader must consult Fraser's *Journal of a Tour through the Himalaya Mountains*; Hooker's *Himalayan Journals*; *Physical Geography of Western Thibet*, H. Strachey; Thomson's *Thibet*; Raper's Narrative, *As. Res.*, vol. ii.; Moorcroft's Journal, *As. Res.*, vol. xii.; Humboldt's *Views of Nature*, Illustrations.

phenomena of nature. On every side are to be seen snowy summits of stupendous height and of every form: the conical volcanic peak; the mountain regularly rounded, or broken into rugged and appalling precipices rising upwards to a tremendous height, or descending with a frightful declivity into deep hollows—and all covered with snow.*

The Terai. At the foot of the Himalayan range lies a belt of tropical forest from ten to twenty miles in breadth. This tract is called the Terai. It is the home of the wild elephant, tiger, buffalo, and of countless antelope and deer. At certain seasons of the year, its malarious atmosphere drives the settlers on the cultivated patches to seek refuge in the hills.

The Suwalik. The Suwalik range—a low chain of hills—separates the northern Terai from the plains.

The slope of the Himalaya. The mean slope of the Himalaya, from the plains to the average greatest elevation of the axis, is only 1 foot in 25: that from the loftiest peak (which is not on the axis) to the plains is 1 in 12.

The Peaks. Among the principal peaks are the following:—Mount Everest† (the highest peak in the world), 29,002 feet above the level of the sea; Kinchinjunga, 28,178; Dhawalgiri, 28,000; Nanda Devi, 25,700; Jannu, 23,312; Kamet, 25,000; Kubra, 24,005; Chunulari, 23,929; and Donkiah, 23,176.

Snow line. The‡ elevation of the snow line is about 16,000 feet on the southern ranges. In the loftier parts, near and behind the axis, it rises to 20,000. In winter the snow descends to 10,000, and occasional falls occur at an elevation of 5,000 feet.

The basin of the Indus. The§ Panjab to the east of the Hydaspes is open

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* The word Himalaya comes from the Sanscrit *Hima*, 'cold' or 'snow,' and *alaya*, 'a place.' Pliny was aware of this:—"Imaus incolarum lingua nivosum significans."—Hist. Nat., vi., 17.

† So named by Sir Andrew Waugh after his old chief, Sir George Everest.

‡ This point has been carefully examined and discussed by Strachey; and is treated by Humboldt in his *Views of Nature*, ed. of 1850, p. 74. The following works may also be consulted:—Lloyd and Gerard's *Tour in the Himalaya*, 1840.—Humboldt's *Asie Centrale*, t. ii., pp. 435-437; t. iii., pp. 231-236.—Hamilton's *Account of Nepal*; and the works of Webb, Forbes, Hodgson, Hugel, Herbert, Vigne, Colebrook, Jacquemont, Moorscroft, and Royle. See *Calcutta Review*, vol. ix., pp. 162-177; and No. xcvi., pp. 78-124.—Humboldt's *Cosmos*, vol. i., p. 337, Bohn's ed., and vol. i., pp. 9 and 338.—Art. by Strachey, *Jour. As. Soc. of Bengal*, new series, No. xxviii., p. 287.—*Jour. Geog. Soc.*, May 1851.

§ Malte-Brun and Balbi.

and fertile, but rugged towards the west, and sandy towards the confluence of the five rivers. When the Indus has received the waters of all its affluents, it flows between mountains and the desert; and as it approaches the sea, it is split up into several streams, forming a rich but ill-cultivated delta.* It is 1,800 miles in length, and the area of its basin is estimated at 372,760 square miles.† It rises in Thibet, at an elevation of nearly 18,000 feet. The alluvium brought down by this great river has been calculated to be sufficient to form annually a deposit 42 miles long, 2 miles broad, and 40 feet deep. The fall from Attok to the sea is only 1,000 feet in 940 miles.

The basin of the Ganges.

The‡ sacred river of the Hindus flows through a vast and fertile plain, draining an area of 391,100 square miles. It is 1,514 miles in length. Its basin is the home of the earliest peoples that figure in Indian history, and is now the seat of the most advanced civilization to be found throughout the empire. The Ganges, with its numerous tributaries and vast reticulation of artificial irrigation, resembles the veins of a leaf carrying with them everywhere life and fertility.

The Indian Desert.

The§ Aravalli mountains are connected by lower ranges with the western extremity of the Vindhya‖ chain on the borders of Guzerat, and stretch up north-eastward towards Delhi, thus dividing the desert on the west from the central table-land. The entire country between the Aravalli and the

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* Markham.

† Chambers.—Lyell's *Principles of Geology*, vol. ii., pp. 98, 99.—cf. Wood's *Journey to the Source of the Oxus*, early chapters.—Burnes' *Memoir on Eastern Branch of Indus*.

‡ *Calcutta Review*, vol. xxxii., pp. 1-25.—Raper's Narrative, *Asiatic Researches*, vol. ii., p. 469; vol. xi., pp. 429-445.

§ The Aravalli mountains, which, for scenes of savage grandeur, rival or surpass the Western Ghâts, repose upon a basis of nearly 60 miles in breadth, and afford shelter in their inexpugnable fastnesses to numerous wild aboriginal tribes, who from time immemorial have here maintained a fierce independence and primitive simplicity of manner.—*The Hindoos* (Knight), p. 83.—Colonel Todd's *Annals of Rajasthan*, vol. i., pp. 12-14.

‖ The Vindhya mountains are scarcely so high as the Aravalli; but they rise very abruptly to their full elevation from the valley of the Narbadda, and form on their northern side the table-land of Malwah, which is about 2,000 feet above the level of the sea, and slopes gently northward, in which direction the Chambal and other rivers drain the most of its waters to the Ganges, while a portion of them is conveyed by the Mhye to the Gulf of Cambay.—*Malte-Brun and Balbi*, p. 680.

Indus east and west, and the Satlej and the sea north and south, is, with the exception of the above region, a waste of sand forming about one-eighth part of the entire surface of India. Oases of various size occur, the greatest being that around Jesalmir.* Between the Indus and the Luni and the Aravalli mountains the desert forms a continuous succession of sand-hills for a space of 450 miles in length, with a breadth varying from 50 to 100. The sand is a dust of the finest quality. The hills are covered with stunted vegetation till within a few months of the rainy season, when, the herbage being blown up, the entire region is abandoned to vast columns of sand borne furiously along by the wind.

Central India.

The† fifth natural division of Hindustan is an uneven table-land, rising to an elevation of 2,500 feet above the level of the sea, and extending to 700 miles in one direction, and from 200 to 250 in another. On the west it is bounded by the Aravalli mountains, and on the south by the Vindhya range; in the east it is supported by a lower chain in Bandelkand; and on the north-east it gradually slopes down to the basin of the Ganges.

The Deccan.

The‡ most remarkable geographical feature of the Indian Peninsula is a vast plateau stretching from 12° to 21° N. latitude, rising to an elevation of 3,000 feet, and enclosed on all sides by mountains, between which and the sea on the east and west are low narrow strips of rich soil divided into many districts of importance. The supporting mountains of this table-land rise in stupendous steps, or terraces, and are accordingly termed Ghâts. The rivers of this region rise on the Western Ghâts, traverse the plateau, and descend to the sea over the Eastern Ghâts.

The rivers of the Peninsula.

The Narbadda§ drains an area estimated at 36,400 square miles, and is 800 miles in length. The area

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* *Malte-Brun and Balbi*, p. 687.—Todd's *Rajasthan*.

† *Highlands of Central India*, by Capt. J. Forsyth.—Malcolm's *Memoir of Central India*.—Forbes' *Oriental Memoirs*, vol. iv.

‡ Chambers.—Paulin de St. Barthélemy, tome 1.—Hamilton, vol. ii.—Baldaeus' *Description of Coast of India*.—Hamilton's *New Account of East Indies*.—Buchanan's *Journey through the Mysore*, &c., vol. ii.

§ Blandford's *Physical Geography*, pp. 104-116.

of the Tapti basin is 27,000 square miles, and its length is 441 miles. The basin of the Mahanadi is put down at 43,800 square miles, and its length is 520 miles. The river Godaveri drains a region extending over 112,200 square miles, and is 898 miles in length. The basin of the Krishna is computed to be 94,500 square miles, and its length is about 800 miles.

The Ghâts.

The* northern portion of the Ghâts seldom exceeds 3,000 feet in height; the Mahableshwar hills form a table-land of about 4,500 feet high, and between 10° and 15° N. latitude there are granite peaks attaining an elevation of 5,000 and 6,000 feet. Farther south, the Neilgherries reach a height of 8,960 feet. The Eastern Ghâts extend along the borders of the Lower Carnatic and Northern Sircars, are at a greater distance from the sea, and are less lofty and less continuous than those on the west.

The Valley of the Brahmaputra.

Assam† is about 360 miles long and from 20 to 70 broad. It contains an area of some 18,900 square miles. It is almost perfectly level, save where, here and there, small conical hills, clothed with the richest verdure, rise above the surface abruptly, and attain to an elevation of from 200 to 700 feet. This province is everywhere intersected by the affluents and branches of the Brahmaputra, a river that drains a basin of 361,200 square miles, and is 1,800 miles in length.

2.—Geology.

Geological Survey.

It is now nearly twenty-four years since Dr. Oldham and his staff commenced their geological survey of India; and up to the present time they have examined an area about four times as large as Great Britain. The full and particular results of their survey are published in the "Memoirs" of their Department; while the vestiges of organic remains, met with during the progress of the survey, are collected in a superb series of volumes, entitled the *Palæonto-*

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* *Calcutta Review*, vol. xxxviii., pp. 286-320.

† *Calcutta Review*, vol. xix., pp. 509-532; vol. xxi., pp. 382-415.—*Asiatic Researches*, vol. xvii., p. 314.—*The Hindoos* (Knight), p. 14.

Publications of Geological Survey.

logia Indica. The "Records," which are published every quarter, give a sketch of the current work in a series of short papers. The commencement of the systematic publication of the maps* of the Geological Survey was made in 1873 by the issue of the twelve sheets of the district of Dumoh, on the scale of one inch to the mile; and the India Office informs us, in its recently published Blue Book, that the final and general form of publication will be the sheets of the Indian atlas, colored geologically, several of which are now ready for the engraver.

Geology of the Himalayas.

The† Himalayas consist of granitic rocks which have penetrated the stratified rocks, thrown them up in endless confusion, and metamorphosed them in many places into gneiss, mica schist, clay slate, or crystalline limestone. The nummulitic limestone of the middle eocene age occurs in several localities in the Himalaya, just as we find it in the Alps; and, indeed, it may be found at intervals throughout the countries which intervene between these two chains of mountain, often presenting itself in masses that are thousands of feet in thickness. The strike throughout the Himalaya is generally north-west, and the dip north-east with many local variations. Layers of sandstone and conglomerate extend along the base of the mountains. They are of the miocene age, containing the remains of species of camel, giraffe, hippopotamus, elephant, crocodile, and tortoise. These are widely developed in the Suwalik range, and have been minutely examined by Falconer.

Geology of river basins.

An immense tract of post-tertiary alluvial deposits covers the whole of the river basins of the Ganges and Indus, stretching across the north of India from sea to sea.

Geology of the Eastern and Western Ghâts.

The Eastern and Western Ghâts consist of metamorphic rocks, which are continued across the country to the north of the Godavery. Between this trans-

* Mr. Clements Markham has published, in his Blue Book on the Moral and Material Progress of India, to face page 106, a map illustrating the work done by the Geological Survey, with an index to the Memoirs.

† Chambers, vol. v., p. 537. Carter's Summary of the Geology of India.—Newbold's Summary.—*Calcutta Review*, vol. ix., pp. 314-371; vol. xxxii., pp. 122-161.—Memoirs of Hislop and Hunter on the Geology of the district around Nagpur.

verse band of altered strata and the diluvial deposits of the north, a large tract of country is occupied with palæozoic rocks, frequently broken through and covered with different kinds of trap, and in some places laid over with Secondary and fresh-water Tertiary strata. In this palæozoic district occur the principal coal-fields of India.

Geology of the peninsular plateau.

The great plateau of the peninsula is chiefly covered with Trappean rocks, with, however, scattered portions of Secondary and Tertiary strata. Pondicherry presents us with the Lower Cretaceous, Trichinopoly and Verdachellum with the Gault and Upper Greensand Series.

Minerals.

India's* mineral wealth lies chiefly in coal seams, salt mines, and iron ores.

Coal.

The principal coal-fields lie in a region bounded by the Ganges on the north, and extending beyond the Godaveri to the south, and having Calcutta as its eastern and the Narbadda as its western limits. Out of this tract, the only coal-fields are those in Upper Assam and the Khasia Hills. Mr. Hughes has estimated the area, over which coal rocks may be presumed to extend in India, at 35,000 square miles.

Extent of coal-fields.

Mr. Blandford divides the coal-fields of India into four groups—1st, those of the Rajmahal Hills and Damuda Valley ; 2nd, those in Rewah, Sirgujah, Chota Nagpur, Talchir, &c. ; 3rd, the coal of the Narbadda Valley and Satpura Hills ; and 4th, the new fields in the valleys of the Wardha and Godaveri.

Raniganj.

Raniganj† is the most important of the Indian coal-fields. The latest returns are for 1868, when it appears that out of 497,000 tons of coal extracted throughout the whole of India, 493,000 came from Raniganj. The field is 18 miles long from north to south, by 40 wide, with an area of from 500 to 600 square miles. The seams vary in thickness from 4½ to 35 feet. Dr. Oldham has roughly estimated the coal available at 14,000,000,000 tons. This field is now traversed by the chord line of the E. I. Railway. Branches run to some of the collieries, of which there are now 44 at work.

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* Markham.

† See article on Coal Resources of Bengal, *Calcutta Review*, vol. xii., p. 213.

The quality of Indian coal.

Indian coal differs from English in being more laminated; and, while the latter contains only 2·7 per cent. of ash, and as much as 68 per cent. of fixed carbon, the former contains from 10 to 30 per cent. of ash, while the proportion of fixed carbon rarely exceeds 60 per cent.

Iron.

The manufacture of iron in India brings us back to the earliest ages. Iron weapons are found in the old cromlechs and kistvaens, and we possess ancient sculptured representations of the same rude processes that are continued to the present day. The iron-producing minerals in India may be divided into three classes—1st, magnetic and specular iron ores and red hematite, in beds and veins; 2nd, clay iron ores from the coal-bearing strata; and 3rd, surface-deposits derived from the waste of metamorphic and sedimentary strata and from laterite, this formation contains from 20 to 30 per cent. of iron.

Iron in Salem.

In the Salem district of the Madras Presidency, very remarkable deposits of magnetic iron ore are found. They occur in beds of from 50 to 100 feet thick, and can be traced cropping up for miles. At Lohara, in the Central Provinces, there is a mass of dense red hematite forming an isolated hill, rising 120 feet above the surrounding country. Hitherto, all efforts at manufacturing iron on a large scale have proved failures. Mineralogists now recommend speculators to turn their attention exclusively to the ores of the coal measures. At Raniganj the iron stones cover an area of several square miles in thin beds. There is an unlimited supply of impure limestone in nodules (called in India "kankar"), which might be employed as a flux. The cost of a ton of coal is estimated at Rs. 3, iron ore at Re. 1, and "kankar" at Re. 1-8; and the cost of manufacturing a ton of pig-iron is estimated at Rs. 24.

The manufacture of iron.

The cost of manufacture.

Salt.

The* low range of hills running through the Jhilam and Shahpur districts on to Kalabagh in the Panjab affords an inexhaustible supply of salt. Some of the beds attain a thickness of 200 feet.† The bed of the Sambhar Lake in Rajputana also yields very large quantities of this precious mineral.

* *Calcutta Review*, vol. xxiv., p. 387.

† Blandford's *Physical Geography*, p. 126.

Copper is worked on a small scale by natives in Kumaon, Garhwal, Nepal, and Sikhim, and in Jaipur, Rajputana. The ore is also found in the Gurgaon and Hissar districts, and in Kulu and Spiti. Copper.

In the form of sulphuret, or galena, lead is found in Kulu, Garhwal, and Sirmur; there is also a mine worked at Subathu, which yields about 40 tons of ore a month, containing 16 to 72 per cent. of lead. Lead.

There are rich tin deposits in Tenasserim and Martaban. Tin.

Gold* in very small quantities occurs in many parts of India in stream gravel. A hard day's work at washing in the Panjab will not be rewarded by more than three or four annas worth of dust. Gold.

Silver, associated with lead, is found in Kulu. Silver.

Antimony abounds in the Himalayas. Antimony.

Cobalt is obtained near Jaipur. Cobalt.

Petroleum is found in the Panjab in small quantities. Petroleum.

3.—Climate.

India† comprehends within its frontiers the opposite extremes of heat and cold. The plains are burned up with intense heat; whilst winter, with every intermediate variety of temperature, prevails in the mountains. As that part of India is situate to the south of the tropic of Cancer, the climate of the lower provinces is tropical, and the year is divided into two seasons, the wet and the dry. But in travelling northward the heat gradually diminishes, until we find in the North-Western Provinces and the Panjab, during certain months of the year, a climate that will bear comparison with the most highly-favored lands of Europe. Still, even here, the summer is extremely hot, and the rainy season alternates with chilly breezes and a stifling closeness. But, from the end of October to the middle of March, nothing can surpass the

* Tieffenthaler, *Descrip. de l'Inde*, tome i., pp. 222-274; tome ii., p. 262.—Hamilton's Introduction, vol. i., p. 21.—*The Hindoos* (Knight), p. 22. Elphinstone, pp. 4 and 5.

† *Encyclopædia Britannica*.—Tieffenthaler, tome i., p. 102.—Malte-Brun and Balbi.—Bernier.—Pennant's *Outlines of the Globe*.—Grose's *Voyage to India*.—*The Hindoos* (C. Knight), 1834, pp. 16 and 17.

delicious coolness of the bracing morning air, the mildness of day, and the soft winds of night.

The monsoons.

The* most remarkable peculiarity of the Indian climate is the stated change of the winds, which blow alternately for nearly half the year in opposite directions. These are termed the monsoons, and blow from the S.W. and N.E.† The periodical rains are ushered in by the S.W. monsoon, which commences about the beginning of June in the south of India, and somewhat later towards the north. The dense masses of cloud which arise on the Indian Ocean are carried forward by the S.W. monsoon over the plains of Hindustan, as far as the Himalaya mountains. On the coast they descend in deluges of rain, which diminish as they recede from the sea, unless where the vapours are intercepted by high mountains, when they pour down in torrents of rain on the plains beneath.

Meteorology.

In 1865, the Governments of Bengal and the North-West initiated the systematic collection of meteorological statistics. In each province a reporter was appointed to collect returns supplied by subordinate observers stationed in widely separated districts. Similar arrangements have now been made in almost every province in India; but much still remains to be done, and there is a great want of centralization in the existing system. More special attention should be directed, moreover, to the normal and abnormal phenomena of the monsoons. We know that the rains depend upon the prevalence of certain winds, and we know, too, their general direction; that they are caused and directed by differences in barometric pressure is also understood, but of the actual distribution of that pressure little is known.

4.—Vegetable Products.

Trees.

The following are among the more remarkable trees of India:—The teak and the sal, fine timber trees; the rare and beautiful sandal and ebony; the far-spreading banyan; the simal with its deep-red flower; the sisu, or black-wood; the mango, valuable

* Malte-Brun and Balbi. Blandford's *Physical Geography*, p. 138.
† *Encyc.-Brit.*

alike for its timber and fruit; the graceful tamarind; the babul, or gum-arabic tree, yielding its sweet-scented yellow flower; the sacred pipal; the epulotic neem; and the flowering acacia. The mulberry is extensively cultivated; and the cocoa, palmyra, and other palms are common. The useful bamboo, with its graceful tapering branches and gossamer foliage, is seen almost everywhere. The mahua from its pulpy flower distils an intoxicating fluid. In the hills we find numerous pines, walnuts, hazels, maples, chesnuts, and oaks to remind us of the vegetation of Europe; and the splendid rhododendron grows to an extraordinary size.

Forest conservancy.

Forest* conservancy has now been carried on by the Government of India for some sixteen years. Its main objects are—to meet a rapidly increasing demand throughout India for supplies of timber for building, and railway sleepers, and fuel for steamer and locomotive consumption; to produce teak, sandal-wood, catechu, lac, caoutchouc, and other forest produce in the interests of trade; to clothe the mountain slopes, and obviate the effects of a rapid surface-drainage; to preserve what is rare and beautiful; and perhaps, in some cases, to modify the climate by influencing the rainfall.

An Inspector-General of Forests.

To combine and give unity to the work already going on in the various provinces of the empire, Dr. Brandis was appointed the first Inspector-General of Forests to the Government of India in 1864; and, in 1867, a system was adopted by which a supply of young gentlemen, thoroughly trained in practical forestry, surveying, road-making, and natural science, in Germany and France, was secured for the Forest Department.

Trained Forest officers.

Three divisions of Forests.

The forests under the control of Government are apportioned into three divisions—reserved forests, unreserved forests, and plantations. The reserved forests cover an area of 6,200,000 acres. These preserves, however, owing to past neglect, are generally in a poor and exhausted state; and for a long time

* Markham.—Royle's *Illustrations of the Botany of the Himalaya Mountains and Productive Resources of India*.—Baden Powell's *Economic Products of the Panjab*.—Dr. Forbes Watson's *Textile Fabrics*.—Oliver's *Indian Botany*.—Hooker and Thomson's *Flora Indica*.

they will cost the State heavy sums on account of surveys, demarcation, boundaries, roads, and plantations. In 1872-73 the total revenue of Indian forests was £477,167, and the expenditure £294,686.

Spices, &c.

On* the Western Coast, pepper and cardamoms are abundant; and everywhere we find capsicum, ginger, cummin, coriander, and turmeric. India, too, supplies us with many well-known aromatics, and the wildest hills are covered with a highly-scented grass, the essential oil of which is supposed by some to have been the spikenard of the ancients. The chemist is supplied with camphor, cassia, fistularis, aloes, &c.; and the manufacturer receives numerous resins, gums, and varnishes from our Indian forests.

Agricultural produce.

Vast plains are covered with cotton, tobacco, poppy, sugarcane, indigo, flax, mustard, sesamum, and palma Christi; and in some places we find fields of roses for the manufacture of attar and rose-water. On the hills, the cultivation of coffee and tea flourishes. Wheat is the staple food of the people of Hindustan; while the inhabitants of Bengal and the Peninsula subsist chiefly on rice.

The Department of Agriculture.

The Department of Agriculture† formed by Lord Mayo, collects statistics regarding every branch of cultivation, and does all that lies within the province of a Government to foster and encourage whatever may tend to the material advancement of the country. Mr. Hume, the eminent naturalist, now presides over this bureau.

5.—Animals.

Domestic animals.

The‡ domesticated animals are—horses, asses, mules, oxen, buffaloes, goats, sheep, elephants, and camels.

Beasts of prey.

The principal beasts of prey§ are—Bengal tigers, maneless lions, leopards, panthers, lynxes, wolves, jackals, hyænas, foxes, and bears.

Deer, &c.

The wild elephant, buffalo, and rhinoceros are found in the deepest jungles. Wild pig are common. Deer and antelope everywhere abound. The curious nilghye is

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* Elphinstone, p. 7.

† Markham, pp. 32-48.

‡ Chambers, vol. v., p. 538.

§ In the Central Provinces alone, during the three years from 1866 to 1869, the number of persons killed by tigers amounted to 946.

frequently met with on the skirts of the forest. Monkeys of many species are countless. Of the thanatophidia,* the cobra, karite, sand snake, and manilla are the most common. The great Indian tortoise sometimes attains a length of 4½ feet. The two species of alligator, innumerable lizards, and the universal frog are the most prominent saurians. In the lower creation we have myriads of mosquitoes, butterflies, locusts, beetles, spiders, flying bugs, tarantulas, centipedes, houseflies, fireflies, wasps, bees, ants, scorpions, &c., &c. The mahseer (Indian salmon), mango-fish, bickty, mullet, sable, eel, porpoise, and murahl people the waters. The† most characteristic birds are the peacock, pheasant, partridge, grouse, jungle-fowl, bustard, quail, pigeon, parrot, ibis, pagoda thrush, myna, bulbul, bee-eater, tailor-bird, flamingo, pelican, adjutant, eagle, vulture, kite, falcon, hawk, raven, and Indian crow. Wild-fowl, of every description, abound.

Snakes. Alligators. Insects, &c. Fish. Birds.

6.—People.

The‡ general theory regarding the ethnology of India is, that in very early times it was inhabited by a Turanian people, but that, at an epoch not yet determined, a branch of the Aryan race entered from the north-west, established themselves first in the Panjab, and then gradually diffused themselves, as a dominant race, over the whole of Northern and Central India, imbuing the subject population, more or less completely, with their religious system and their language, and thus forming the Hindus. The tribes known as Bhils, Ghonds, &c., still inhabiting the mountainous districts and jungles, are supposed to be outstanding islands of the aboriginal population that resisted the tide of Hindu conquest and civilisation. It is widely believed that the Hinduising influence spread feebly, if at all, in the Deckan, and that the many tribes of

Aborigines. Aryans.

* Fayrer's *Thanatophidia of India*. In 1869, 14,529 people died throughout India from effects of snake-bite. The total deaths caused by snakes and wild animals in 1871 amounted to 18,078.

† Jerdon's Birds.—*Stray Feathers: passim.*—*Calcutta Review*, vol. xxviii., pp. 120-195; vol. xii., pp. 1-25.—*The Ornithology of Our Indian Empire*: A. O. Hume (in the Press).—*The Game Birds of India*; Hume.—*My Scrap Book*.

‡ Chambers, p. 529.

that region are consequently not Aryans. (The learned author of the *Folk Songs of Southern India* dissents, however, from this view.) Whether* this is the case or not, it may be safely asserted that the people of India do not form a homogeneous nation, but differ among themselves as much as do the various peoples of Europe.

The Mahomedan conquerors.

The Mahomedan conquerors were mainly Arabs of the Semitic branch of the human family, and Moghals, Turks, or Tartars of the Turanian. They introduced the literatures of Arabia and Persia, and, when once mingled with the people of India, formed that mixed language which is to this day the most widely spoken vernacular in Hindustan, Urdu. The basis of the language is Hindi or Sanskrit, but a large Arabic and Persian element has entered it, and it is written in the character of Persia. Speaking roughly, the household words are Hindi; the learned and scientific terms Arabic; while the expressions of courtesy, and judicial and military terms, are borrowed from the Persian.

Urdu.

Social and religious orders.

The four great orders of society among the Hindus are—1st, Brahmans; 2nd, Kshatriyas; 3rd, Veisyas; and 4th, Sudras.

Note.—Mr. Mill has quoted a passage from Plato in which it is pretended that the fourfold division of the people into castes prevailed in very ancient times among the Athenians.—Cf. Diod. Sic., lib. i., p. 84.—Strabo. lib. xvii., p. 1135.

Brahman.

Menu† tells us that a Brahman is the first in rank of all created beings, and that, indeed, only through him other mortals enjoy life; by his imprecations he can destroy a king, with his troops, elephants, horses, and cars; can frame other worlds and regents of worlds, and give being to new gods and mortals. Happily, however, Brahmans do not exercise these extensive powers at the present day; and, beyond being recognised as a priestly caste, performing sacerdotal functions, and being usually addressed by the people as "maharaj," their former grandeur would seem to have passed away. They are strictly

* Heber's *Journal*, i., 9.

† Elphinstone.—Sir W. Jones' *Translation of Menu.*—*Journal R. A. S.* (Wilson), vol. vii., p. 138.—*Asiatic Researches*—Colebrooke, v., 63—*Menu*, v.—Sir W. Jones' Works, vol. vii., pp. 75-90.—Haughton's Ed. *Menu*, vol. *ii.*, p. 13.

excluded from the enjoyment of earthly wealth, power, ambition, or pleasure. Pain and contemplation are their part. Yet now we see them everywhere, in violation of their sacred writings, seated on the *gadi*, holding high and lucrative appointments, and even engaging in trade. Perhaps their influence has passed away with their self-denial.

Kshatriya. The Kshatriya (pronounced Chattri) is the kingly and warrior caste. Earthly power and glory are the Kshatriya's portion. The Rajputs claim to belong to this order.

Veisya. The Veisya (pronounced Veish) is the trading and agricultural caste. Menu says that besides largesses, sacrifices, and reading the Vedas, the duty of a Veisya is to keep herds of cattle, to trade, to lend at interest, and to cultivate the land.

Sudra. The duty of a Sudra (usually pronounced Shudar) is to serve the other classes. According to Menu, the religious penance for killing him is the same as for killing a cat, a frog, a dog, or a lizard. So awful is his degradation, that in his presence a Brahman may not read the Vedas, even to himself. The Sudra is forbidden to amass property, lest he should become proud and vex the Brahmans. In a word, he is in all respects abased, and must remain so.

Metamorphic social strata. At the present day, the caste system is so modified by sub-division and intermixture as to be hardly recognisable. When you ask a man what his caste is, unless a Brahman, he commonly replies by naming some obscure sect or clan of which nothing can be learned by the uninitiated. The three lower strata are now in what the geologist would call a metamorphic condition.

Population. The difficulties of arriving at a just estimate of the population are enormous.* The people view with

* Mr. Markham says that the Bengal census of 1871 was regarded in some districts with much suspicion by the people, who believed it to be the forerunner of a new tax, or still more severe measures. One man hid his babies, and, when remonstrated with, urged that they were too young to be taxed. In Murshedabad it was believed that Government intended to blow the surplus population away from guns; elsewhere it was reported that it was to be drafted to the mills where coolies were required. This year (1875), on the census being announced, similar alarms were propagated among the lower classes at Delhi and other cities of Upper India.

horror the inquisitorial nature of census papers, pronouncing them a violation of the privacy and decency of domestic life. Recent attempts at numbering the British subjects lead us, however, to the conclusion that the old computations resulted in an under-statement of the numbers.* An official report, laid before a Committee of the House of Commons on Indian Affairs in 1831, makes the population 140,722,700.† From the India Office Blue Book of 1874, we extract the following statistics regarding the population of British India :—

Province.	Area, in square miles.	Population.	Date of Census.	Density per Sqr. Mile.
Bengal and Assam	248,231	66,856,839	1872	269
Madras	139,698	31,597,872	1871	226
North-West Provinces...	81,402	30,769,056	1872	378
Panjab	103,748	17,596,752	1868	170
Bombay and Sind	124,943	16,352,623	1872	131
Oudh	23,042	11,220,032	1869	469
Ajmir	4,672	426,268	1865	159
Curg		168,312	1871	84
Mysore	27,077	5,055,412	1871	187
Berar	17,334	2,231,565	1867	128

E.G., the Administration Report of 1870 states the population of the districts of Naddia and Cattack to be respectively 568,712 and 215,835, while the census of 1871 gave the numbers as 1,812,795 and 1,449,784.

† Hamilton, in his *Description of Hindostan*, i., 37, places the population at 134,000,000. In the eighth edition of the *Encyclopædia Britannica* the population is given as 180,367,148. Mr. Montgomery Martin estimates the population at 200,000,000, that is, about 90 inhabitants to the square mile.

CHAPTER II.

HISTORICAL SKETCH.

I.—Hindu Period.

A.—Hindustan.

From the early period of Indian history, it is with difficulty we rescue a few facts from amidst the superincumbent *débris* of fable and exaggeration. The* first information we receive leads us to infer that the Hindus dwelt at one time between the rivers Sarsuti and Ghaggar, a district lying about a hundred miles to the north-west of Delhi, and extending for about sixty-five miles in one direction, and from twenty to forty in another. This tract, Menu says, was called Brahmavarta, which may mean either 'the land of Brahma,' or 'the land of sacred knowledge.' The country between that region and the Jumna, and all to the north of the Jumna and Ganges, including North Behar, is next mentioned as a place suitable for the residence of Brahmans, and is termed Brahmarshi. Here we appear to have another step in the diffusion of the Aryan people. The Puranas do not mention these early lands, but introduce us to Ayodhya (Oudh), about the centre of Brahmarshi, the fountain-head of the Solar and Lunar families. Some seventy generations of the solar race form the subject of mythology, but can take no place in history. The story of the Ramayana,† however, when stripped of its poetical finery, leaves us what would appear to be the naked fact, that one Rama, a powerful king of Hindustan, marched through the Deckan and conquered Ceylon. The Mahabharata‡ supplies

Brahmavarta.

Brahmarshi.

Ayodhya.

The Ramayana.

The Mahabharata.

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* Elphinstone's History of India, p. 225.—Menu, ii., 17-24.

† Mr. Ralph Griffith, the Principal of the Government College at Benares, has, through his exquisite metrical translation, familiarised English readers with this great poem. It is ascribed to Valmiki, who probably lived sufficiently subsequent to the events he relates to allow the fungus of fable to invest them.

‡ Vyasa, the author of the Vedas (Marshman holds a different opinion, p. 9), is the reputed author of this epic; but there is internal evidence to show that it was put in its present form by Sauti, who received it through another person from Vyasa; 24,000 of the 100,000 verses it contains are ascribed in the same place to the original poet.—(Original Sanscrit, vol. i., p. 133.

us with the next stepping-stone. It relates the history of a contest between two great families, the Pándus and Curus, for the possession of Hastinapura, in which the former were victorious. The war probably occurred in the fourteenth century before Christ. India was now divided into many States. The story sweeps from Guzerat to the Himalayas, and from the Deckan to beyond the Indus. The names of twenty-nine Pándus who succeeded to the throne is embalmed in legend. Delhi seems to have been the seat of their government.

Magadha. A more important dynasty was that of Magadha. The Kshatriya kings of this line figure in the Mahabharata as chiefs of a confederation in the basin of the Ganges. They were succeeded by a Sudra family. Magadha is rendered famous by its having been the birth-place of Buddha, and from its language—Magadhi, or Pali—being still preserved in the sacred writings of the Buddhists and Jains.

Buddha (Died 477 B.C.)

Darius. We* must now glance at the Persian and Greek invasions. Darius crossed the Indus on a bridge of boats, and probably formed a satrapy of the provinces washed by that river. We read that he received vast quantities of gold as tribute.

Alexander, 327 B.C. Alexander conquered the Panjab, meeting with a slight but well-organised resistance. Some of the Indians fought from elephants; and those who did not excite surprise, appear to have inspired respect.

Accounts of the Greek Historians. The Greek historians† tell us a good deal about the people of India. They mention the caste system, the asceticism of the Brahmans, and the absence of slavery. The presents made by the Indians indicated wealth, while numerous trading cities and seaports proved the existence of a flourishing commerce. The police was excellent; and justice was impartially administered by the king and his ministers. Village communities are spoken of; and the accounts given of the mode of agriculture and procession of the crops, conform to what we see around us at the present day. We cannot quite go with the Greek writers, however, when they state that the Hindus

* We pass over the expedition of Semiramis of Assyria as given by Diodorus.

† Herodotus and Ctesias.

are a brave, temperate, truthful, and orderly people, averse to litigation. But perhaps they have deteriorated.

Chandragapta overthrew the Sudra line of Magadha, he himself being a man of low caste. We learn from Arrian that he was visited by Megasthenes, an ambassador from the court of Seleucus. Megasthenes called the people of Magadha, the Prasii, and their capital, Pataliputra, he corrupted into Palibothra. Some have identified it with Patna,* others with Allahabad.† Arrian and Strabo both say that the Prasii were the most distinguished of all the Indian nations, the number of which Megasthenes estimated at 118. Chandragapta. Megasthenes.

Asoka, the third of Chandragapta's line, possessed a very extended power. The extent of his dominions appears from the wide distribution of his edict columns, and the humanity of his administration appears from the inscriptions they bear, which provide for the establishment of hospitals and dispensaries throughout his empire, as well as the planting of trees and digging of wells along the highways. Asoka.

The era still employed by the Hindus north of the Narbadda is that of Vikramaditya, who reigned at Ujein fifty-six years before the birth of Christ. Although his career is obscured by fable, it is clear that he was a powerful monarch, ruling over a wide and prosperous country, and patronising letters with the discriminating enthusiasm of a scholar. Vikramaditya, B.C. 56.

The next epoch is that of Rajah Bhoja. His name is a household word with the Hindus; but almost nothing is certainly known of him. His reign terminated about the close of the eleventh century. Rajah Bhoja.

The Balabhi princes of Guzerat were succeeded by the Chauras, who, in A.D. 746, established their capital at Anhalwara. They were Rajputs, and became one of the greatest dynasties of India. The Chaura dynasty of Guzerat, A.D. 746.

The kingdom of Canouj consisted of a long narrow strip, including Nepal in the east, and on the west extending along the Chambal and Banas as far as Ajmir. Both Rajput and Mahomedan Canouj.

* Major Rennell. † D'Anville.

writers dwell on the extent and magnificence of the capital of this kingdom, the ruins of which are still to be seen on the banks of the Ganges. This kingdom has given its name to one of the highest families of the Brahman order.

B.—The Deckan.

The* history of the Deckan, if not so ancient, is less obscure than that of Hindustan; and, it may be added, less interesting. Here the Hindus, being mere colonists, are not so conspicuous as in their own seats; while extremely little is known of the

Aborigines.

aborigines. Before they are brahmanized, the Hindus speak of them either as foresters and mountaineers, or as goblins and demons;† but there are evidences of a higher civilization and higher culture in Tamil literature than these contemptuous epithets would allow. It‡ is probable that the Hindus first settled upon the fruitful plains of the Carnatic and Tanjore, before venturing to explore the bleak downs of the higher Deckan. Pliny describes these parts of the country as being covered with trading towns enjoying by sea a commerce with other nations.

The people of the Indian peninsulas peak five distinct and important languages, the limits of which mark ethnological boundaries of historical importance.

Tamil.

Tamil is spoken in the country called Dravida, lying in the extreme south of the peninsula. On the north this region is bounded by a line drawn from Pulicat to the Ghâts between that and Bangalore, and along these mountains westward to the boundary line between Malabar and Canara, which it follows to the sea so as to include Malabar. These limits also include the district of the Malayalam.

Canarese.

The northern boundary of the above is in part the southern of Carnata, where Canarese is spoken. The sea defines it on the west nearly as far as Goa, and then by the Western Ghâts towards Colapur. A line from Colapur to Bidar will mark the northern limit, and from Bidar to a point between Pulicat and Bangalore, the eastern.

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* Professor Wilson's Introduction to the Mackenzie Papers.—Elphinstone, p. 236.—Marshman's History of India, i., p. 21.

† Dr. Caldwell's Dravidian Comp. Grammar.

‡ Professor Wilson surmises that the south was civilized ten centuries before Christ.

Telugu.

Prolong this last line to Chanda on the river Warda, and you have the western limit of the Telugu language; from this, the northern boundary may be roughly drawn to Sohnpur on the Mahanadi. The eastern limit runs from Sohnpur to Cicacole, and thence along the sea to Pulicat.

Mahratta.

The line we have already drawn, from Goa through Colapur and Bidar to Chanda, gives us the southern limit of the Mahratta country. The eastern line follows the Warda to the Jujadri (or Satpura) hills south of the Narbadda. These hills form its northern limit as far west as Nadod, and thence through Daman to Goa a line may be drawn defining it on the west.

Uriya.

The Uriya district is bounded on the south by the Telugu, and on the east by the sea. The western and northern boundary may be roughly indicated by a line from Sohnpur to Midnapur in Bengal.

The Ghonds

The space left between the Mahratta country, or Maharashtra, and the Uriya district, or Orissa, is in the main a forest tract inhabited by the Ghonds. They, too, have a language of their own, though it has not sufficient importance to be classed with the five mentioned above.

The Pandyas and Cholas.

The* most ancient kingdoms of the Deccan appear to have been those of the Pandyas† and Cholas in the extreme south, where the Tamil language is spoken.

The Pandyas.

The seat of government of the former was finally fixed at Madura, where it existed in the time of the geographer Ptolemy. The reigning family lost its importance in the ninth century, but remained at the seat of its former power till 1736, when the last member was overthrown by the Nawab of Arcot.

The Cholas.

The kingdom of Chola had Conjeveram for its capital. It maintained its vigor for an immense period; and about the eighth century appears to have extended its authority over a considerable portion of Carnata and Telingana, and to have spread itself over as much of the country up to the Godaveri as lay east of the hills at Nandirug. In the twelfth century the Cholas appear to have met with a check,

* Marshman, i., 21.

† Strabo mentions an ambassador who came to visit Augustus from the court of King Pandion, or the Pandya monarch.

and to have been driven back within their ancient frontiers. Thus they continued, either as independent princes or feudatories of Vizianagram, until the end of the seventeenth century, when the brother of the founder of the Mahrattas, then an officer under the Mahomedan ruler of Bijapur, being sent to aid the last rajah, supplanted him, and founded the present family of Tanjore.

Kerulu. The ancient division of Kerulu appears to have been colonised by Brahmans about the second century, who divided it into sixty-four districts, and governed it by an ecclesiastical senate, presided over by a Brahman re-elected every three years. Subsequently, however, they came under the subjection of the Pandyas, and, about the ninth century, the country was broken up into various principalities; one of the most important of which, Calicut, was under the government of the Hindu Zamorin when the Europeans first landed in India, under Vasco de Gama, in 1498.

Telingana. About the eleventh century, the Belala dynasty appears to have become paramount in this region. They claimed to be Rajputs of the Yadu clan, and at one time they extended their dominion over the whole of Carnata, Malabar, and the Tamil country. They were overthrown by the Mahomedans early in the fourteenth century.

Orissa. The* early annals of Orissa are extremely obscure. We know almost nothing about the province until 473, when the Kesari family obtained the throne, which they held till 1131. They were succeeded by the line of Gunga-Bungsu. This dynasty was subverted by the Mahomedans in 1568.

Maharashtra. There† are only two facts distinctly visible in early history relating to Maharashtra—the existence, more than twenty centuries ago, of the com-

Tagara. mercial mart of Tagara,‡ so well known to the Romans; this has been identified with Deogiri, the modern Daulatabad (Elphinstone denies, however, their identity), and was the capital of a long line of sovereigns. The second event is the reign of

* Hunter's *Orissa*, and Rajendra Lall's *Antiquities of Orissa*.
† Marshman, i., 23.
‡ This was a great emporium of trade in the second century, and is mentioned by the author of *Periplus*.

Salivahan. We learn of this prince that he was the son of a potter, that he headed a successful insurrection, dethroned the ruling family, and established a monarchy so powerful and extensive that it gave rise to an era which has survived him for eighteen centuries, and is still employed in the Deckan.* Salivahan.

2.—Mahomedan Period.

The† Mahomedan powers, having subdued Persia and the neighbouring countries, made occasional inroads into India; and, about A.D. 1000, Mahmud entered Hindustan and effected a permanent establishment. This prince was the grandson of Sabaktigin, the ruler of Ghazni. He invaded India twelve several times, giving no quarter to the Hindus, and defacing their temples. His last invasion was in 1024, and he died four years afterwards. His dominions comprehended the eastern provinces of Persia, nominally all the Indian countries westward of the Ganges to Guzerat, and from the Indus to the mountains of Ajmir. The Panjab alone, however, was now subjected to the regular government of the Mahomedans. In 1158, the Ghaznian empire was divided into two parts. The western portion was seized by the family of Ghor; while the countries on the Indus fell to the share of Khusru, who fixed his head-quarters at Lahore. The Moslems now extended their conquests eastward; and Mahomed Ghori took the city of Benares in 1194, and abandoned it to pillage. He also invaded the region to the south of the Jumna, seized the fortress of Gwalior, and reduced the eastern frontier of Ajmir. He was succeeded in 1206 by Qutb-ud-din, who fixed his capital at Delhi, and founded the dynasty of the Slave kings. The emperor Altamsh, who next ascended the throne, extended his conquests over Bengal. During this reign, Janghiz Khan subdued the western empire of Ghazni; and the Moghals, his successors, about 1242 made frequent inroads into the north-western provinces of Hindustan. The country was now a

Mahmud, 1000.

Khusru.

Mahomed Ghori, 1194.

Qutb-ud-din, 1206.

Altamsh, 1211.

Moghals, 1242.

* Grant Duff's *History of the Mahrattas.*

† *Encyclopædia Britannica*, ed. 8th.

scene of internal disorder, from the ambition of rebellious chiefs, and the plundering instincts of the mountain tribes. In the meantime, the Slave kings of Delhi were prosecuting their conquests eastward, and the Moghals were making incursions into the western provinces, and a considerable number of them, under Jelal-ud-din, were, in the year 1292, permitted to settle in the country. In 1293, this emperor invaded the Deccan. He was deposed and murdered by Ala-ud-din, the governor of Karrah, who extended his conquests in the peninsula. Kafur, one of his generals, penetrated into the Carnatic in 1310. Rebellions breaking out in Telingana, it was again subjugated in 1312, and 1313, in which year Ala-ud-din died, the Carnatic was swept by his troops from sea to sea. In the early part of Mahomed Tughlak's reign, the Mahomedan empire to the east of the Indus was more extensive than it ever was at any other period; but, later on, this monarch allowed both Bengal and the Deckan to slip from his grasp, and lost much territory in Guzerat and the Panjab. Firuz, who succeeded, was more intent on domestic improvement than on foreign conquest. The extent of his public works,* and the humanity of his laws, have cast a halo around his memory. He died in 1388, and, after a brief interval, was succeeded by Mahmud Tughlak. The minority of this prince created the greatest confusion; and, in 1398, the country was invaded by Tamerlane, who advanced to Delhi, which submitted without a struggle, and was abandoned to the fury of the barbarian soldiery. A frightful massacre of the defenceless inhabitants was carried on indiscriminately for several days. The† conqueror then advanced on Mirat, where another massacre occurred; and afterwards crossed the Ganges, and marched up its banks to the point near Hardwar, where it issues from the hills. Several engagements took place with bodies of Hindus on

Jelal-ud-din, 1288.

Ala-ud-din, 1295.

Mahomed Tughlak, 1325.

Firuz, 1351.

Mahmud Tughlak, 1394.

Timur, 1398

* The following is a list of his public works:—50 dams across rivers for irrigation, 40 mosques, 30 colleges, 100 caravan-serais, 30 reservoirs for irrigation, 100 hospitals, 100 public baths, 150 bridges, besides many other edifices of pleasure or ornament.—Elphinstone, p. 412. The round numbers, however, arouse scepticism.

† Elphinstone, p. 416.

the skirts of the hill, in which Timur, notwithstanding his lameness and age, exposed his person like a private soldier, and underwent the most extraordinary fatigues. He marched along the foot of the mountains to Jamu; then, turning to the south, struck the route by which he had entered India, and disappeared* from the scene, leaving anarchy, famine, and pestilence behind him. Mahmud died in 1413, the last of the Tughlaks. A period of great confusion now succeeded. Numerous competitors for empire arose. Under Ibrahim Lodi the anarchy came to a head, and prepared the way for the conquest of India by Baber, sixth in descent from Tamerlane. This prince, whom we know so intimately from his own memoirs translated by Mr. Erskine, had just been driven out of Transoxiana by the Uzbegs, and Bactria alone remained to him when he invaded India, and in 1525 defeated the emperor of Delhi, and possessed himself of the north-western provinces of India. After a reign of five years, he was succeeded by his son Humayun, who was driven from the throne by Shir Shah, whose successful usurpation was succeeded by such a period of disorder, five sovereigns having appeared on the throne in the course of nine years, that Humayun was recalled in 1554, and died the following year, leaving his son, the famous Akbar, heir to the throne. The reign of this emperor, which extended over fifty-one years, was the most admirable and magnificent that India has ever known. He reduced the revolted provinces from Ajmir to Bengal, and by the vigor of his policy, tempered with a wise toleration, he consolidated them into one great empire. In 1585 he set out to conquer the Deckan, which, on the dissolution of the Bahmani empire, was divided among the sovereigns of Bijapur, Ahmadnagar, and Golconda. Akbar died in 1605, at which time his empire was divided into the following *subahs*, or viceroyalties :—Lahore, Multan, Delhi, Agra, Allahabad, Oudh, Ajmir, Guzerat, Behar, Bengal, Malwa, Berar, Khandeish, Ahmadnagar, and Cabul. We know much of the inter-

Ibrahim Lodi, 1516.

Baber, 1525.

Humayun, 1530.

Akbar, 1556

* He was now marching on Bajazet.

nal economy of Akbar's administration from the *Ayini Akbari* ('Regulations of Akbar'). It* contains a minute description of the establishments and regulations of every department, from the mint and treasury down to the fruit, perfumery, flower offices, the kitchen, and kennel. The whole affords an astonishing picture of magnificence and order, where great numbers perform their duties without disturbance, and a wise economy is seen amidst the most splendid profusion. The great emperor was succeeded by his son Selim, who assumed the title of Jehangir.† It was in this reign that Sir Thomas Roe,‡ the first English arabassador to the Great Moghal, arrived in India. The Portuguese had already acquired considerable possessions in Bengal and Guzerat. Shah Jehan, who disturbed his father's reign with constant rebellions, now succeeded to the throne. He now pursued his conquests in the Deckan with renewed activity. In 1633, the first quarrel arose between the Portuguese and Moghals, and ended in the expulsion of the former from Hughli. The country was again disturbed with civil war in 1658, the emperor contending with his sons, and the sons brawling among themselves. Seven years before his death, Shah Jehan was supplanted by his son Aurangzib, and kept in honorable confinement in the fort at Agra. Shah Jehan was the most magnificent prince that ever appeared in India. His retinue, his state establishments, his largesses, and the economy of his court, were all on the most stupendous scale. The peacock throne, the new city of Delhi, the Jamma Masjid, and the Taj Mahal are monuments of his taste and splendour. At his death, the Moghal empire extended from Cabul to the Narbadda, westward of this river to the Indus, and eastward it comprehended Bengal and Orissa; while to the south the Moghals had conquered a large tract of country, bounded by Berar on the east, westward by the hills towards the Concan, and by the dominions of Golconda and Bijapur to

Jehangir, 1605.

Shah Jehan, 1627.

* Elphinstone.

† The chief resources of information respecting this reign are—Khafi Khan's History, Gladwin's *Reign of Jehangir*, Major Price's edition of Jehangir's Memoirs.

‡ Sir T. Roe in *Churchill's Voyages*.

the south. Aurangzib, having removed his elder brothers from the scene, found himself firmly seated on the throne. From 1660 to 1678 Hindustan enjoyed the profoundest peace. The Deckan was again invaded, and eventually completely subjected to the emperor of Delhi. In 1678, Aurangzib was engaged in quelling the rebellion of the Pathans beyond the Indus, and the Rajputs, by whom he was so hemmed-in among the mountains as hardly to be able to escape. In 1681 he again attacked them, and took and destroyed Chittore. A more formidable enemy than any the Moghal emperors had yet to deal with, now arose. Sivaji,* one of the greatest leaders of light cavalry that the world has ever seen, gathered around him a few other fiery particles like himself, broke his allegiance to the Rajah of Bijapur, whose subject he was, and commenced to form a great nation out of the loose, floating masses of his wild countrymen. The extraordinary vehemence of his character fascinated the most bold and adventurous spirits, whom he bound to himself by the aid of his commanding character and heroic achievements: thus he formed a chosen body of troops, whom he led forth to an unparalleled series of military enterprises. This was Aurangzib's thorn in the flesh. His frontiers were incessantly threatened and violated by these desperate horsemen, and it required all the resources of his vast empire to prevent and repel their assaults. At his death, Sivaji left a kingdom extending for four hundred miles in one direction and one hundred and twenty in another. For the last fifteen years of his reign, Aurangzib was for the most part engaged in the field. While absent in the Deckan, the peace of the empire was disturbed by the insurrections of the Rajputs, and the Jâts, hitherto only known in the character of banditti. During this monarch's reign, the Moghal empire attained to its highest pitch of prosperity. It extended from the tenth to the thirty-fifth degree of latitude, with nearly as many degrees of longitude, and its annual revenue was equal to thirty-two millions sterling. On the death of Aurangzib, the sovereignty was

Aurangzib (or Alamgir), 1658.

Sivaji, born 1627.

* Grant Duff's *History of the Mahrattas.*

disputed by his four sons, of whom Muazzim eventually remained successful. He ascended the throne under the title of Bahadur Shah. The Sikhs during this reign appeared in arms for the first time. They and the Rajputs rose in rebellion. He reduced these insurgents, and took up his residence at Lahore, where he died in 1712. During the whole of his reign, he never visited either Agra, or Delhi his capital. After a struggle for dominion among his sons, he was eventually succeeded by Farokhsir, the son of Azim Ush Shan and great-grandson of Aurangzib. It was in this reign that the East India Company obtained the famous charter by which they were exempted from all custom duties on their exports and imports. A series of effete princes now rose to the throne, and the Moghal empire steadily declined until 1739, when Nadir Shah* descended upon Delhi, caused a general massacre of the inhabitants, and carried off a vast treasure. Mahomed Shah, in whose reign this occurred, was succeeded by Ahmed Shah, and the Moghal empire was now finally dismembered. The last imperial army that ever assembled was defeated in 1749 by the Rohillas. The† bonds of empire were now dissolved over a region containing sixty millions of inhabitants, and accordingly the most alarming commotion and excitement prevailed. An irruption of Afghans into Northern India by no means tended to allay this uneasiness; and when the Mahrattas, who had now risen to the zenith of their power, disputed the path of conquest with these wild Duranis, the political chaos was indescribable. At Panipat in 1761, the light-footed, quick-eyed horsemen of the south met the sturdy northern mountaineers. The Mahrattas were totally defeated, and their power sustained a shock from which it never recovered.

Bahadur Shah, 1707.

Farokhsir, 1712.

NadirShah, 1739.

Mahomed Shah, 1719.

Ahmed Shah, 1748.

Panipat, 1761.

3.—British Period.

A student of New College, Oxford, named Stevens, was one of the first Englishmen who landed in India, and gave an account of his travels. In

* Fraser's *History of Nadir Shah.*

† Rennell's *Memoirs of Hindustan*, p. lxx.

1533 he was followed by Newberry and Fitch, who travelled through Syria to India, bearing a letter from Queen Elizabeth to Akbar. Fitch's account of the country and its inhabitants is still extant. The first English expedition destined for India was rather warlike and buccaneering than commercial. It was destined to cruise against the Portuguese, and was sent out in 1591, under the command of Captain Raymond. Sickness, shipwreck, and other disasters, however, rendered it a complete failure. Yet the design of opening up commercial communication with India was not abandoned; and when the Dutch, in 1595, had despatched four ships with that purpose, English jealousy and cupidity were aroused. In 1599 a Company was formed in London, with a subscribed capital of £30,133-6-8. This was the mundane egg out of which was eventually evolved our mighty empire in the east. In 1600 the Company received a Royal Charter of Privileges, conditionally, for fifteen years. In the following year a little fleet of five small ships sailed from Torbay under the command of James Lancaster, who had acted as lieutenant to Raymond in the last expedition. He was furnished with letters from Queen Elizabeth to various eastern potentates, who had probably never heard of her majesty's existence. The fleet visited Acheen, captured a Portuguese vessel in the Straits of Malacca, touched at Bantam, and returned with a rich cargo of calicoes and spices. In 1612 the Moghal emperor granted them a charter authorising their first establishment on the continent of India, and in that year the first little factory arose at Surat. A Scotch surgeon, named Boughton, resident in Surat, had performed important professional services for the imperial family, and received from Shah Jehan and his viceroy in Bengal valuable privileges; and in 1656 the English erected a fortress at Hughli. In 1640 the site of Madras had been obtained, and a fortress was erected by order of King Charles I. Bombay formed a portion of the dowry of Catherine of Braganza, and in 1668 Charles II. made it over to the East India Company, who removed their head-quarters here from Surat. In 1696, the villages of Chattanatti,

Newbury and Fitch, 1533.

Raymond's Expedition 1591.

The Company, 1599.

The Charter of 1600.

The Expedition of 1601.

The Firman of 1612

Fort at Hughli, 1656.

Madras, 1640.

Bombay, 1668.

Calcutta, and Govindpur were purchased from Azim, the grandson of Aurangzib. The* history of Calcutta up to 1756 is little more than a record of the efforts of the British merchants to resist the exactions of the Nawab of Murshedabad, a viceroy of the Delhi emperor. In 1716 an embassy was sent to Farokhsir to secure the protection of our commercial interests. It was successful, and the merchants determined to make Calcutta a presidency, or head-quarters of their chief agent in the east of India, just as Bombay was on the west and Madras on the south. In 1742 the Mahrattas attacked Bengal, and demanded an impost termed "chauth," or one-fourth. It was then that the Mahratta ditch was dug around Calcutta, to afford protection against a repetition of this attack.

The† French, who had established an East India Company in the reign of Louis XIV., were the only formidable rivals we possessed in India. The Portuguese were now our allies, and their power was inconsiderable. The Dutch chiefly confined their attention to Java and the neighbouring islands. The French had two important settlements, Chandernagar on the Hughli, and Pondicherry on the coast of the Carnatic. They also possessed the Isle of Bourbon and the Mauritius in the Indian Ocean. The wars of the mother-countries spread to these remote colonies. In 1746, the French, under La Bourdonnais, took Madras; and Dupleix, governor of Pondicherry, in violation of the terms of the capitulation, carried the principal inhabitants to that town, and paraded them through the streets in triumph. Madras was restored at the peace of Aix-la-Chapelle. During the peace, Dupleix, by intrigues with the native princes, endeavoured to extend the French empire in India at the expense of the English; but he was encountered by the superior genius and valor of Clive, a clerk who had been among the captives at Madras. The taking of Arcot, the victory at Arni, the capture of the great pagoda are achievements which our very limited space will not permit us to detail. After the most gallant

Madras taken by the French, 1746.

Clive—born 1725, died 1774.

* Lethbridge, p. 101. † Hume, p. 622.

services, this merchant soldier went to England to recruit his health. On his return, he found that Surajah Daulah, viceroy of Bengal, had taken Calcutta, and confined 146 of the English residents in a small and loathsome dungeon, known as the Black Hole, where, in one night, the greater part of them died of suffocation. Signal vengeance was, however, soon taken. In the following January, Clive re-took Calcutta; with a force of 900 Europeans and 1,500 sepoys he kept at bay the Surajah's army of 40,000 men, and compelled a peace. Shortly afterwards, he marched upon Chandernagar, and took it; and his next and crowning exploit was the total defeat of Surajah Daulah at Plassy. The Nawab had an army of 50,000 men and 40 pieces of cannon; Clive only 1,000 Europeans, 2,000 sepoys, 8 field-pieces, and 2 howitzers. Plassy, 1757

The genius and courage of Clive had now converted an association of traders into the rulers of a large and magnificent empire.

It would be impossible in an abstract like this to do justice to the later history of our empire in India; and we must content ourselves with a mere chronological table of events.*

Clive's First Administration, 1757-60.

1759	Invasion of Behar by Shah Alam II.
1760	The First Battle of Patna.
1760	Humiliation of the French and the Dutch.
1760	Clive's Return to England.

The Administrations of Vansittart and Spencer, 1760-65.

1760	Deposition of Mirjafar.
1761	The Second Battle of Patna.
1762	Quarrel between the Nawab and the Calcutta Council.
1763	War with Mir Kasim.

* Extracted from Mr. Lethbridge's excellent little history.

1763	Massacre of Patna.
1763	Flight of Mir Kasim.
1764	First Sepoy Mutiny.
1764	The Battle of Buxar.
1764	Humiliation of the Nawab of Oudh.
1765	Death of Mirjafar.
1765	Clive a third time in India.

Clive's Second Administration, 1765-67.

1765	Grant of the Dewani to the English.
1766	Confederacy against Haider-Tippu.
1767	Final Retirement of Clive.

Verelst, Cartier, and Hastings, successive Governors of Bengal, 1767-74.

1773	Treaty of Benares.
1774	The Rohilla War.

THE GOVERNORS-GENERAL OF BRITISH INDIA

From 1774 to 1858.

Warren Hastings, 1774-85.

1773	The Regulating Act.
1775	The Begams of Oudh.
1776	Nandakumar.
1785	Retirement of Hastings.
1788-95	His Trial.
1784	Fox's India Bill.
1784	Pitt's India Bill.
1785-86	Sir John Macpherson, Acting Governor-General.
1772	Haider defeated by the Mahrattas.
1776-79	His Recovery of Power.
1779	Capture of Mahé by the English.
1779	Triple Confederacy against the English.
1780	Haider invades the Carnatic.

1780	Colonel Baillie captured.
1781	Sir Eyre Coote brings Reinforcements from Bengal.
1781	Battle of Porto Novo.
1781	Overland March of an Army from Calcutta.
1781	Second Battle of Pollilor.
1781	Battle of Solingarh.
1781-83	War between the English and Dutch.
1782	Death of Haider.
1783	Campaign in Malabar.
1784	English invade Mysore.
1784	The Treaty of Mangalore.

Lord Cornwallis, 1786-93.

1788	Annexation of the Guntar Sircar.
1784-87	Tippu at war with the Mahrattas.
1788	His Conquest of Malabar.
1789	He attacks Travancore.
1790-92	Third Mysore War.
1792	Siege of Seringapatam.
1793	The Permanent Settlement.

Lord Teignmouth (Sir J. Shore), 1793-98.

1797	Trouble in Oudh; Assassination of Mr. Cherry.
1797	Settlement of Nawab of Carnatic's debts.

The Marquis Wellesley, 1798-1805.

1798	Subsidiary Treaty with the Nizam.
1798	War with Tippu.
1799	Battle of Sedasir.
1799	Battle of Mallavelli.
1799	Siege of Seringapatam.
1799	The Storming of Seringapatam.
1799	Death of the Sultan.
1799	Settlement of Mysore.

1802 Quarrels between the Governor-General and the Directors.
1805 Retirement of Lord Wellesley.

Lord Cornwallis (the second time) and Sir George Barlow, 1805-1807.

1805 Lord Cornwallis a second time in India.
1806 The Vellor Mutiny.
1807 Sir George Barlow sent to Madras as Governor.

Lord Minto, 1807-13.

Lord Minto's necessary interference in Native States.
1808 Travancore.
1809-10 Capture of French Colonies.
1809 Treaty with Ranjit Sing.
1809 Treaties with Sind, Cabul, and Persia.
1813 The Company's Monopoly taken away.

The Marquis of Hastings, 1813-23.

1814 War with Nepal.
1816 Peace.
1817-23 Mahratta War.

Lord Amherst, 1823-28.

1823 War with Burmah.
1826 Barrackpur Mutiny.
1826 Storming of Bhartpur.

Lord William C. Bentinck, 1828-35.

1829 Abolition of Sati ; Suppression of Thaggi.
1832 Settlement of Mysore.
1833 The Overland Route.
1834 Conquest of Curg.
1834 Renewal of the Charter.

Lord Auckland, 1836-42.

1837	Disputed Succession in Oudh.
1837	The Persians attack Herat.
1838	Tripartite Treaty.
1839	Advance of the British Army.
1839	Shah Shuja enthroned at Candahar.
1839	Storming of Ghazni.
1839	Occupation of Cabul.
1839	Return of the Main Army.
1840	Battle of Parwan.
1841	Revolt of the Khiljis.
1841	Outbreak at Cabul.
	Assassination of Macnaghten.
1842	Disastrous Retreat.
1842	Defence of Jalalabad.
1840-42	The First Chinese War.
1842	Retirement of Lord Auckland.

Lord Ellenborough, 1842-44.

1842	Relief of Jalalabad.
1842	Relief of Candahar.
1842	General Pollock's Advance on Cabul.
1842	General Nott joins him.
1842	Rescue of Prisoners.
1842	Storming of Istalif.
1842	Evacuation of Afghanistan.
1842	Causes of the Sind War.
1843	Attack on the Resident.
1843	Battles of Miani and Haidrabad.
1843	Annexation of Sind.
1843	Troubles in Gwalior.
1843	Battle of Maharajpur.
1843	Battle of Panniar.
1844	Recall of Lord Ellenborough.

Lord Hardinge, 1844-48.

1845	The Sikhs cross the Satlej.
1845	Battle of Mudki.
1845	Battle of Firuzshahr.

1846 Battle of Aliwal.
1846 Battle of Sobraon.
1846 Settlement of the Panjab.
1847 Abolition of Octroi Duties.

Lord Dalhousie, 1848-56.

1848 Outbreak in the Panjab.
1848 Assassination of Vans Agnew and Anderson.
1848 Plot at Lahore.
1848 Siege of Multan.
1849 Battle of Ramnagar.
1849 Storming of Multan.
1849 Battle of Chillianwallah.
1849 Battle of Gujarat.
1849 Annexation of the Panjab.
1852 Second Burmese War.
1853 Annexation of Nagpur.
1853 Renewal of the Company's Charter.
1856 Annexation of Oudh.

Lord Canning, 1856-61.

1857 The Persian War.
1857 Expedition to China.
1857 *The Great Rebellion.*
1858 Confiscation of land in Oudh.
1858 Transfer of the Government to the Queen.

Lord Elgin, 1861-63.

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CHAPTER III.

BRITISH ADMINISTRATION.

1.—Administrative Divisions.

The following are the territorial divisions into which British India is distributed for administrative purposes.

Lower Provinces.

The Lower Provinces of Bengal* have an area considerably greater than France and as great as Austria, with a population surpassing that of either. They are divided into two parts. The one consists of the fertile and populous districts of the basin of the Ganges, constituting Behar and Bengal Proper, with the maritime districts† of Orissa; and the other the hill tracts of Orissa, and the extensive territory south of Behar, which was till recently inappropriately termed the south-west frontier, but is now usually styled the Chota Nagpur Division. This tract, which has an area not far short of that of England, forms the eastern shoulder of the plateau of Central India. It is, in the main, a wild and mountainous region, clothed with forests and inhabited by aboriginal races.

The Lower Provinces are divided into ten Commissionerships, *viz.*—Bhagalpur, containing four districts; Bardwan, five districts; Chittagong, five districts; Chota Nagpur, five districts; Dacca, four districts; Kuch Behar, three districts; Orissa, four districts; the Presidency division, five districts; Patna, six districts; Rajshahi, seven districts.

Local Government.

The government of the Lower Provinces is entrusted to a Lieutenant-Governor, assisted by a Legislative Council; under him are the Commissioners of Divisions and the Collectors and Magistrates of Districts. Calcutta is the capital, but in summer Government sometimes migrates to Darjiling. The High Court is the supreme tribunal to which appeals are carried from the courts of the local Judges in the principal

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* Chesney's *Indian Polity*. Barton's *Bengal*.

† Won in 1803, by an expedition from the Lower Provinces, from the Mahratta Rajah of Berar.—See Hunter's *Orissa*.

districts; it also has original jurisdiction in a great variety of cases. The Board of Revenue receives reports collated by Commissioners from District Collectors, and is the final tribunal, within certain limits, in questions relating to the land-rent.

The North-West.

The North-Western Provinces (of Bengal) were formed of the tracts conquered by Lord Lake and ceded by Scindia, and of the districts ceded by the Nawab Vizier of Oudh in 1801; together with the province of Benares, which had been acquired in 1781. They are nearly equal in area to Great Britain; and are densely populated, having, as we have elsewhere stated, an average of 378 persons to the square mile. This portion of the empire comprises seven divisions under Commissioners, *viz.*—Agra, with six districts; Allahabad, with six districts; Benares, with six districts; Jhansi,* with two districts; Mirat, with six districts; Rohilkand, with six districts; and Kumaon.

Local Government.

A Lieutenant-Governor presides over the administration. He differs from the head of the Bengal (proper) Government in not having a Council: otherwise he employs a similar machinery. Allahabad is the seat of Government; in the hot weather, however, the Lieutenant-Governor and the heads of departments usually migrate to Naini Tal, a beautiful sanitarium in the Kumaon Hills.

The Panjab.

The Panjab has a greater area than the North-Western Provinces, yet its population is little more than half as great. It is a non-regulation province (*v.* note* below); and is divided into thirty-two districts, distributed among ten Commissioners. The following are the divisions or Commissionerships:—Ambala, with three districts; Amritsar, with three districts; Delhi,† with three districts; the Derajat, with three districts; Hissar, with three districts; Jallandar, with three districts; Lahore, with

* Jhansi and Kumaon are what are termed "non-regulation divisions;" that is, they are divisions which, not having enjoyed a settled and penetrating system of government for any length of time, are administered with a direct and simple machinery until they become ripe for more advanced institutions.

† Shortly after the Mutiny, the country formerly known as the Delhi territory up to the right bank of the Jumna, and including the city of Delhi and adjacent districts, was transferred from the North-Western Provinces of Bengal to the Panjab; and the Chief Commissioner of that province was elevated to the rank of a Lieutenant-Governor.

three districts; Multan, with four districts; Peshawar, with three districts; Rawalpindi, with four districts.

A Lieutenant-Governor presides over the province. The principal judicial tribunal is termed the Chief Court. A Financial Commissioner replaces the Board of Revenue of Regulation Provinces. The administration is carried on by military officers in civil employment, and members of the Bengal Civil Service. Each division has its Commissioner, who is represented in the various districts within his jurisdiction by Deputy Commissioners (analogous to the Magistrates and Collectors of Regulation Provinces). The Deputy Commissioner is assisted by Assistant Commissioners and Extra Assistant Commissioners; and these have under them Tehsildars, who preside over the small sub-districts that form the ultimate units of administration. Lahore is the capital; but the hill-station of Marri is usually visited by the Government in the hot weather. Local Government.

Oudh.

This province, which was annexed in 1856, is about equal in extent to Belgium and Holland together; and is more densely populated than any other part of India, the average being 469 persons to the square mile. It is distributed among four Commissioners, the following being their divisions—Faizabad, with three districts; Lucknow, with three districts; Rai Bareli, with three districts; Sitapur, with three districts.

It is governed by a Chief Commissioner;* and, instead of the High Court and Board of Revenue we find in Regulation Provinces, it has a Judicial Commissioner and a Financial Commissioner. Lucknow is the seat of Government. Local Government.

The Central Provinces.

The Central Provinces† are a collection of pro-

* The Governors of Bombay and Madras have each two aides-de-camp, a band, and small body-guard. The Lieutenant-Governors have a single aide-de-camp, besides a private secretary, and their escort is furnished from the native army. A Chief Commissioner has no staff. The Secretaries of the Supreme Government address Governors and Lieutenant-Governors through their Secretaries, but Chief Commissioners in person. Nominally, the Chief Commissioner has no patronage or authority; every appointment is supposed to be initiated, and all promotion controlled, by the Supreme Government; while for every administrative act the Central Power is responsible, as it is, nominally, made either under its orders, or subject to its control.

† This territorial division was created in 1861 by detaching the country known as the Sagar and Narbadda districts from the N. W. P., and uniting it to the province of Nagpur, the Commissioner of which became Chief Commissioner of the amalgamated provinces.

vinces obtained at various times from different Mahratta States; they have an area nearly as extensive as the presidency of Madras, but contain a large proportion of uncultivated and forest land, sparsely inhabited by aboriginal tribes. The nucleus of these provinces was the tract of country near the source of the Narbadda, ceded by the Mahrattas after the war of 1817-18. There are four divisions, and an extra district:—Chattisgarh, with three districts; Jabalpur, with five districts; Nagpur (which lapsed to us in 1854), with five districts; Narbadda, with five districts; and the Upper Godaveri district.

Local Government. It is governed by a Chief Commissioner and an administrative establishment similar to that of Oudh.

The Berars. This province is somewhat larger than Denmark, with about the same population. It is formed into two divisions—East Berar, with three districts; and West Berar, with three districts.

Local Government. It is administered by the Resident at the Nizam's Court, under the orders of the Government of India.

Mysore and Curg. To the above may be considered as added, for purposes of administration, the province of Mysore, forming that portion of the kingdom of Tippu which, on its conquest in 1799, was made over to a descendant of the ancient Hindu rulers. In 1832, the management of the country was resumed by the British, in consequence of the Rajah's misrule; and it has since then been administered in his name by

Local Government. an English Chief Commissioner, under the orders of the Government of India. It has now been determined to restore the country to the Rajah's son when he shall be of age. Mysore forms a tableland from 3,000 to 6,000 feet above the level of the sea; and is about as large and as populous as Bavaria. The small mountainous province of Curg, which was annexed in 1834, is attached to it. Mysore is divided into three divisions—Ashtagram, with two districts; Nagar, with three districts; Nandidrug, with three districts. Curg forms a district.

Madras. The Governor of Madras* rules over a territory

* This presidency, from a few scattered districts, was developed into the important territory it now forms in 1801, when the Nawab of the Carnatic, whose finances were hopelessly involved, was obliged formally to cede his dominions.

in extent only about one-half of that under the Lieutenant-Governor of the Lower Provinces of Bengal, and only a little larger than Great Britain and Ireland. For administrative purposes, the presidency is divided into twenty districts—Bellary, Coimbatore, Cuddapah, Ganjam, Godaveri, Krishna, Karnul (annexed in 1841), Madras City and Chingalput, Madura, Malabar, Nielghiri, Nellore, North Arcot, Salem, South Arcot, South Canara, Tanjore, Tinnevelli, Trichinopoly, and Vizagapatam.

Local Government.

The government is carried on by a Governor, Council, and Legislative Council. A High Court and Board of Revenue watch over the administration of justice and the collection of the land-rent.

Bombay.

The Bombay presidency is nearly equal in extent to the North-Western Provinces of Bengal; but its population is less by nearly one-half. It was, in great measure, formed of the territories taken from the Peishwa, Scindia, and Holkar in the Mahratta war of 1817-18. It is divided into three Commissionerships—Northern Division, with seven Collectorates; Southern Division, with nine Collectorates; and Sind Division,* with five Collectorates.

Local Government.

Its administrative establishment is similar to that of Madras.

2.—Government of India.

The business of the Supreme Government has for many years been conducted in separate departments. These are now six in number—Foreign, Home, Financial, Military, Agricultural, and Public Works. The proceedings of each department are recorded in a separate office, presided over by a Secretary, under whose signature all orders of the Government are issued, and to whom all communications are addressed, excepting the despatches from the India Office. The Supreme Executive Council is a cabinet formed of six persons, in addition to the Commander-in-Chief of the Forces, who has usually, but not necessarily, a seat *ex-officio*. Each member becomes the responsible minister of a bureau, the Viceroy taking charge of the portfolio of Foreign Affairs. Thus we

The six departments.

The Supreme Council.

* Annexed in 1843. † Chesney, p. 146.

have a Military member, or War Minister, in charge of the *administration* of the army; a Financial member, or Chancellor of the Exchequer; a Legal member, or Lord Chancellor; a Home member, or Minister for Home Affairs; and a Public Works member, or First Commissioner of Works and Public Buildings. All meetings of the Executive Council are held with closed doors.

The Legislative Council.

In 1853, a separate Legislative Council for India was established, which (as subsequently modified in 1861) now consists, besides the members of the Supreme Executive Council, of not less than six, or more than twelve, members, of whom one-half must be unconnected with the public service. The six officials are always civilians of experience chosen from the different provinces of the empire; while, with regard to the other element, it has been the practice to appoint four natives of rank and two leading Calcutta merchants. All hold their seats for two years. The annual session only lasts about three months. Strangers are admitted, by orders obtained from the Legislative Secretary, to the meetings of the Legislative Council, which are held, during the session, once a week, in the Council Chamber of the Viceroy's residence.

The Foreign Department.

The Foreign Department* is entrusted with the duty of directing our diplomatic relations—firstly, with all neighbouring foreign powers beyond the limits of Hindustan; and, secondly, with the four hundred and sixty dependent princes and chiefs within our borders. These two functions are obviously of supreme importance; for on these, more than on any other department of the State, the maintenance of peace and the general policy of the empire depend. They are, however, necessarily secret in their operation, and they usually become known to the public by their results. Indeed, it may be asserted that a large portion of the great diplomacy transacted by the Viceroy of India never attracts the notice of Parliament or the British public. Of course, in dealing with independent principalities and powers beyond the bounds of India, the Viceroy

* Mr. J. W. S. Wyllie in the *Edinburgh Review*, January 1867.

must act in concert with the English Cabinet; especially when dealing with an European State, or first-rate oriental power such as China or Persia, at whose court Her Majesty is directly represented. But even subject to this limitation, the Indian Foreign Office yet remains the focus of politics for half Asia, the storehouse of the romance of all the East. Murmurs of Dutch aggression in far Sumatra, and whispers of piratical *prahus* lurking amid the unexplored isles of the Malayan Archipelago; rumours of French enterprize in the feverish rice-swamps of Cochin China; and quaint glimpses of Burmese life at the court of the Golden Footed Monarch of Mandalay—such are the varied contents of a mail packet from the southern seas. Out of the west come tidings of pilgrim-caravans at Mecca, of pearl-fishers in the Persian Gulf, or of burning slave ships on the coast of equatorial Africa; outrages of the Christian emperor in Abyssinia, and the Wahabi fanatic at Riad, have also excited their share of attention. North-eastward, down the Himalayan passes of Bhutan and Nepal, the life that slowly stirs among the lamas and monasteries of Thibet, sends now and then a faint pulsation into Bengal; while the valley of Cashmere, and the passes of the Karakoram, have afforded a passage to envoys from the uncouth Khans of Chinese Tartary, or Eastern Turkistan. Finally, in the farthest north, beyond Afghanistan, and amid the deserts of the wandering Turkomans, looms the giant form of restless Russia. In fact, it would be hardly an exaggeration if the English Viceroy's political range of vision were to be stated in the magnificent syllables of Milton—

The Viceroy's political range of vision.

> "His eye might there command, wherever stood
> City of old or modern fame, the seat
> Of mightiest empire, from the destined wall
> Of Cambalu, seat of Cathaian Can,
> And Samarcand by Oxus, Temir's throne,
> To Paquin of Sinaean kings; and thence
> To Agar and Lahor of Great Mogul,
> Down to the Golden Chersonese; or where
> The Persian in Ecbatan sat, or since
> In Hispahan, or where the Russian Ksar
> In Mosco; or the Sultan in Bizance,
> Turchestan-born; nor could his eye not ken
> The empire of Negus to his utmost port,
> Ercoco and the less maritime kings,
> Mombaza and Quiniea and Melind."

The Foreign Secretary is alone, among the Secretaries, a responsible minister; for he deals directly with the Viceroy, no member of Council intervening. He* is assisted in the discharge of his high functions by an Under-Secretary, Assistant Under-Secretary, and four *attachés*. The office establishment is on a somewhat larger scale than that of the other departments. It consists of a Registrar and Deputy Registrar, who direct, collate, codify, and retouch the work done by twenty-six clerks. A printing establishment is also maintained.

The Office.

The Home Department.

The Home Office deals with various branches of the internal economy of our own provinces, among which Police, Gaols, and Education claim special notice.

The Police.

The† peace of the country is preserved, crime is suppressed and detected, and decrees are executed by a body of about 190,000 police constables, assisted by the village watchmen of immemorial times. In the Lower Provinces of Bengal, in addition to the 22,640 regular district police, there are 2,474 Calcutta suburban, 168 river, and 486 railway police. In 1871-72 they made 72,817 arrests on criminal prosecutions, of which 36,813 convictions were obtained. Of 394 murders, 160 were detected. The village watchmen number some 200,000. The entire regular police force of the North-Western Provinces amounts to 82,988, or 27 to every 10,000 of the population. Of these, 57,408 are rural police, 16,139 provincial, 9,071 municipal, and 378 railway.

The Lower Provinces.

North-West.

In these provinces, two duties of especial interest are entrusted to the police, namely, the supervision of hereditary thieves, and the suppression of infanticide in the Rajput villages.

The Panjab.

In the Panjab, the police force is divided into Trans and Cis-Satlej divisions, the whole numbering about 20,000 men, of whom 53 per cent. are Mahomedans, 29 Hindus, and 17 Sikhs. In

* An obvious defect in the establishment is the want of a permanent Under-Secretary, or Assistant Secretary, who would accumulate special knowledge, preserve the traditions of the bureau, and give continuity to its work.

† Markham's Blue Book.

1872-73, out of 358 murders there were 140 convictions. The police force in Oudh numbers 4,898 constables; that in the Central Provinces 7,379, exclusive of municipal and railway police. Oudh and Central Provinces.

In Bombay there is now a distinct and complete executive for police purposes. The pay of a constable is fixed at seven or eight rupees a month, and, unless he can read and write, he is ineligible for promotion. The railway police was organised by Government in 1866. Convictions are at present only in the ratio of 39 per cent. to the crimes; the consequence is that crime is on the increase. The village police, under the control of the Magistrates, is composed of the old *Mahars*, or watchmen of the ancient Mahratta village system. In the *Bara Baluta*, or body of village authorities, the *Mahar* stands tenth. The *Patel*, or head-man, is first, and is responsible for all revenue and police matters. There are still two semi-military bodies of police in the Bombay presidency, namely, the Khandeish Bhil Corps of 840 men, and the Guzerat Bhil Corps of 503 men. The Bhils are the aboriginal mountaineers of Khandeish. They are professional robbers, and were long the terrors of the peaceful settlers in Khandeish. The two Bhil Corps have now, however, diverted the energies of the most troublesome spirits into a useful channel. Bombay.

The police force in the Madras presidency consists of 22,018 men, besides the watchmen. The percentage of convictions, in cases tried in 1872-73, was 51·7. Madras.

The force in Mysore numbers 6,440 men. Mysore.

The gaols throughout India are usually under the charge of medical officers. They are all on the industrial principle. Great attention is paid to sanitation; and sometimes, it is to be feared, the material welfare of the prisoner renders his condition more tolerable than it would be were he in the enjoyment of freedom and innocence. In Bengal there are 7 central gaols, 54 district gaols, and 87 lock-ups. The number of prisoners in the year 1872-73 amounted to 20,489. Gaol labour is divided into—*penal*, comprising the treadmill, stone-breaking, and lime and flour-grinding; *hard*, includ- *Gaols.* Lower Provinces.

ing earthwork, drawing water, hewing wood, and blanket-weaving; *light*, such as tailoring, dyeing, weeding, gardening, and writing. In the above-mentioned year, the Alipore gaol jute-mills yielded a profit of £18,150, and the gaol press £9,422. In Bombay, 20,747 prisoners were confined during the year 1872; and there were 62 executions. In the Madras presidency the gaols were tenanted by 23,441 prisoners. The penal settlement in the Andaman Islands contained 7,239 convicts.

Bombay.

Madras.

Port Blair.

Education. The system of public instruction is based on the proposals put forward by Sir Charles Wood in his despatch of July 19th, 1854. The objects aimed at were stated to be the provision of a first-class education for the wealthier classes, and of elementary instruction for the masses of the people. With a view to attaining these ends, departments of public instruction were created in each administrative division of the empire; and subsequently universities were established in the three presidencies to control the progress of the higher education; fix, by examinations, the standards of attainment; and confer degrees. The government of each is vested in a Vice-Chancellor and senate, and diplomas are granted in the faculties of Arts, Law, Medicine, and Engineering. The machinery is now in full working order. In every corner of the empire primary schools are established, aided or authorised by Government, in which the children of the people learn to read and write their own language, obtain a knowledge of the simpler processes of arithmetic, and acquire a smattering of Persian or some other polite tongue. They are periodically visited by Government Inspectors, who carefully examine the children, and test the efficiency and industry of the masters. The more promising boys are often drafted up to one of the preparatory city schools, where they undergo a course of instruction, embracing the elements of an English education, that fits them eventually for the High School, where English is the medium of instruction. Here, again, they are prepared to matriculate at one of the universities; when they are entered as students of some Government college. A curriculum of four years at these institutions, and the passing

Universities.

Primary Schools.

High Schools.

Government Colleges.

of an* intermediate examination (analogous to our "Responsions" or "Previous Examination") renders them eligible candidates for a degree in Arts. Once able to place the letters B. A. after their names, they fancy that they have almost a right to *claim* Government employment, which is viewed, in 99 cases out of 100, as the ultimate end of a liberal education. Although, in the scheme of higher education, special attention is paid to the English language, European systems of philosophy and mathematics, and authentic history, the great classical languages of the East are not neglected. The best teachers of Arabic and Sanskrit that can be found in the country are employed in our Government colleges.

An administrative Defect.

At present there is a great administrative defect in the educational machine, which may be briefly stated as the want of centralization. Every province has its own Department of Public Instruction controlled by an independent officer, termed a Director, or Inspector-General. If this official is facile and weak, he becomes a mere Under-Secretary to the Local Government; if strong and energetic, he devotes himself to school inspection, and only differs from an ordinary inspector in being more irregular and less thorough; for, as his zeal is not limited to a *circle*, it is more thinly diffused, and as his administrative duties break in upon his time, he cannot move about with systematic punctuality. What is wanted is a Department of Education attached to the Supreme Government, and controlled by a responsible Secretary, who will communicate, through the local Secretariats, with principals of colleges and inspectors of schools.

The Lower Provinces.

In† August 1873 there were 10,787 indigenous rural schools in the Lower Provinces of Bengal, with 255,728 pupils; there were also 179 High Schools, with 20,641 scholars; and 15 colleges, of which 10, with 858 pupils, were Government institutions, and 5, with 305 pupils, were aided.

* A great number of students leave their colleges when they receive their Testamurs; quite satisfied with having passed, what is termed, the "First Examination in Arts."

† Other educational institutions of secondary importance exist, in addition to Technical Colleges of Engineering and Medicine, Schools of Art, and Normal Schools.

The North-West.

In the North-Western Provinces there were 3,630 village schools, educating 130,981 children. Three High Schools attached to colleges had 776 pupils; while 9 superior and 13 inferior detached High Schools afforded instruction to 1,900 and 1,137 boys, respectively. There were 4 Government Colleges with 127 students.

The Panjab.

In the Panjab there were 1,046 Government and 188 village schools, the former with an average daily attendance of 51,251 boys, and the latter with 20,825. There were also six Government and ten aided High Schools, and two Government Colleges.

Oudh.

In Oudh* the number of village schools is 753, with 5,460 pupils; the High Schools number 11, with an attendance of 3,096. The Canning College in Lucknow educates 67 students in its higher department. There are 842 primary schools supported by the State in the Central Provinces, and 1 High School. In the Berars there are 326 primary schools, and 2 High Schools.

The Central Provinces and Berars.

Bombay.

In the Bombay presidency there are 3,595 village schools, supported by one-third of the one-anna cess on every rupee of land-revenue. In 1873 they were attended by 182,147 pupils. There were also 41 High Schools, with 7,167 pupils, and 6 colleges affiliated to the Bombay University. Of these, the Elphinstone College had 184 students, 45 being Brahmans. New professorships of astronomy, natural history, history and political economy, Persian, Arabic and Sanskrit have recently been founded. The Deccan College at Puna had 99 students, of whom 90 were Brahmans.

Madras.

There were 6,190 primary schools in Madras, with a daily attendance of 149,081. The High Schools number 53, and were attended by 11,990 pupils. There are 13 colleges affiliated to the University, which were attended in 1873 by 480 students.

Female Education.

Female education receives careful attention in all the provinces. In Bengal there are 245 girls' schools; in the North-West, 420; in the Panjab, 345; in Oudh, 81; in the Central Provinces, 118. In the Bombay presidency there are 11,000 girls under instruction, and in Madras upwards of 9,000. In Curg,

* There is a Government or aided school now within 4½ miles of every child in Oudh. The statistics given are those for 1873.

160 girls go to school with their brothers, and learn needle-work in addition to the ordinary course.

A vast amount of educational work is done by missionaries of all denominations; their great proficiency in the vernaculars supplying them with extraordinary facilities for instruction. Their presses are also actively engaged in the good work. From 1862 to 1872 they issued 3,416 new works in 30 languages, and 2,375,040 school-books were circulated. There are 25 presses at work. Missionaries.

The Financial Department does not superintend revenue business; this is dealt with by the Agricultural Department; but it is the final authority in all matters involving an increase to the public establishments, or, generally, a permanent charge on the State. It thus stands in the position of the English Treasury. Another of its functions is to control ultimately the issue of coin and paper money. *The Financial Department.*

There are three mints in India—at Calcutta, Bombay, and Madras—the masters of which are officers of the Supreme Government, receiving their instructions directly from the Financial Department. The Mint Master is also the Commissioner of Paper Currency. The introduction of a paper currency dates from 1861. India had been steadily draining Europe of bullion at the rate of ten millions sterling a year; and the circulating medium in India being silver, huge boxes were being perpetually transmitted, at great expense and risk, to and fro over the length and breadth of the land. At the close of 1860, The three Mints. Paper Currency.

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* An interesting pamphlet has been published by Mr. Seecombe on the metallic currency of India. It would appear that the silver rupee was first introduced by Shir Shah, the weight being 11½ rassiks. Akbar's rupee, called the *jilaly*, was of the same weight and value, being 178 troy grains of nearly pure silver. The later rupees of Akbar's successors weigh 175 grains. The towns of Agra, Ahmedabad, and Cabul alone had the privilege of coining gold; Allahabad, Surat, Delhi, Patna, Srinagar, Lahore, Multan, and Tandah minted silver. On the breaking-up of the Moghal empire, numerous mints were established by the subadars; so in 1773 the East India Company determined that all rupees coined by them should bear the impression of the seventeenth year of Shah Alam, and thus the sicca rupee retained the value of the Moghal coin. (*W. Bazaris on a Gold Currency for India*; Colonel J. T. Smith, Lond., 1868.) Colonel Smith proposes introducing the sovereign into India as the equivalent of ten rupees, without altering the weight of the rupee by increasing the seigneurage on silver coinage; this, he estimates, it would in some cases be necessary to fix as high as six per cent.

Mr. Wilson proposed a scheme to remedy this; but it was not carried out till modified in the following year by Mr. Laing.

Income and Expenditure.

The year 1872-73 may be taken as a specimen of the condition of the Indian balance-sheet. The income of the State for that year was £50,219,489, while the ordinary expenditure amounted to £48,453,817. We propose to enter into the items of income in another place.

The Military Department.

This* is the Indian War Office. It controls the administration of the army. The presence of the Commander-in-Chief in Council, in addition to the Military Member, is somewhat anomalous. Yet if they both confine themselves to their respective executive and administrative spheres, there need be no clashing of authority.

The two Members.

The Army in India.

The† established military force of British India numbers 193,005, including officers, of whom about 128,447 are natives and 60,613 British. Of the natives, 47,814 belong to the Bengal Army; 27,221 to the Madras Army; and 24,712 to that of Bombay. British forces are chiefly stationed in the Panjab and along the valley of the Ganges. There are 38,011 English soldiers in the Bengal presidency, of whom 12,690 are in the Panjab. In the Bombay Presidency there are 10,068 English soldiers; and on the Madras side, including the Nizam's territory and the Central Provinces, 11,612.

The Panjab.

Our great military position in India is the Panjab. It is overlooked by great mountain ranges, the home of formidable robber clans; two great passes on its frontiers communicate with Beluchistan, Afghanistan, and Persia, and Central Asia beyond; while its own population is the most warlike to be found in India. In view of such considerations, the Lieutenant-Governor has directly under his orders a select body of troops, known as the Panjab Frontier Force, numbering 12,416 men.

The Agricultural Department.

The Department of Agriculture, Revenue, and Commerce was instituted by Lord Mayo in June 1871. It deals with every branch of the administration that directly relates to the income of Government. Statistics, surveys, meteorology, fisheries, experimental farms,

* Chesney. † Markham.

forests, and cultivation come under the category. Much adverse criticism has been directed against classifying together such various interests; yet the event has justified the design, and the convenience of the arrangement has been felt in every direction. Agriculture in India is capable of almost indefinite improvement; while the future development of Indian commerce depends on the quantity and quality of existing staples, and on the introduction of new products. The cultivation of chinchona, cotton, coffee, tea, indigo, tobacco, rhea jute, and many other natural products demands the intelligent and watchful care of a central department, as do all measures for improving the breeds of horses and cattle, for introducing new products, regulating fisheries, and promoting agricultural instruction. Instead of, as formerly, directing its exclusive attention on audit and retrenchment, the far wider duty of developing the sources of revenue is now felt by Government to be a duty of the first importance. To convey some notion of the elements of the Indian revenue, the principal items of income for the year 1872-73 may here be stated. The Total amounted to £50,219,489, of which £21,348,669 was derived from land-revenue, £8,684,691 from the sale of Bengal opium, and the duty on Malwa opium; £6,165,630 from the salt-tax; £8,166,329 from customs, excise, assessed taxes, and stamps; and £5,854,170 from smaller items.

The items of Revenue.

In India* the term "public works" has always been applied to every kind of building operation undertaken by Government, including the construction and repairs of all State buildings, civil and military, as well as the prosecution of roads, railways, and canals. It was in 1854, under the administration of Lord Dalhousie, that the administrative portion of this business in Bengal was handed over to a separate department of the Supreme Government; while the immediate executive control was transferred to the Local Governments, and a Public Works Department formed for each province. In Madras and Bombay this example was soon followed by removing the control of public

The Department of Public Works.

* Chesney.

works from local Military Boards, and constituting it a part of the civil administration.

The establishment.

In each province a Chief Engineer, *ex-officio* a Secretary to the Local Government, is placed at the head of public works. Under him are Superintending Engineers of Circles, also Deputy Secretaries to the Local Government; while the actual works are conducted by Executive Engineers and Assistant Engineers, aided by subordinate officials of various grades, down to the chuprassies on seven rupees a month, who keep the different gangs of coolies at work. This year (1875), a Minister of Public Works, a Royal Engineer officer, has been added to the Supreme Executive Council.

Books.—The most accessible works on the British Administration of India are those of Mr. Mill, Miss H. Martineau, Colonel Chesney, Sir G. Campbell, and Mr. Iltudus Pritchard. The collected speeches of Mr. Bright on India are as instructive as they are eloquent. The India Office Blue Book for 1872-73, entitled the *Moral and Material Progress of India*, and Dr. W. W. Hunter's *Orissa*, the first-fruits of his great statistical survey of India, contain great stores of facts.

CHAPTER IV.

THE NATIVE STATES.

Extent, population, troops.

It is roughly estimated that the native states cover an area of 640,000 square miles, contain a population of more than 56,000,000 souls, and pay a revenue of £14,500,000. Out of this large sum, only £741,455 is exacted as tribute by the Paramount Power. A military force of 314,598 men* is maintained by these states—a force nearly twice as great as the entire army with which we ensure the safety of the whole empire, and engage even to support the independence of these very principalities. There are among these troops 3,488 serviceable pieces of artillery, besides a great quantity of cannon capable of doing mischief, though not to be much depended upon.

Degree of independence.

Small and great, the native states number upwards of 460, and each, though in a different degree, acknowledges our supremacy. Nepal, for example, merely admits the fact, and tolerates a half-imprisoned Resident at Khatmandu; Hyderabad undertakes to follow our advice, and govern her subjects with justice; and Cashmere acknowledges her dependence by the payment of a nominal tribute: while, on the other hand, smaller states are indirectly governed by our political officers, and only possess imperfect judicial powers. Since we have finally abandoned the policy of annexation, almost all our feudatories have received what, to a debauched and effete class, is an important guarantee, namely, the right of adopting successors.

Adoption.

Classification.

It† is convenient to class the native principalities into twelve groups:—

1. The Indo-Chinese group of states and tribes; all (except Kuch Behar) having affinities with China

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* Our whole army, composed of native and European troops, inclusive of officers, numbers only 138,000.

† Throughout this chapter the information is chiefly derived from the Statement of the Moral and Material Progress of the People of India, issued by the India Office in 1874.

Aitchison's Treaties, and Malleson's new work on the Native States, should be consulted by those who desire a more intimate acquaintance with the subject.

or Burmah, yet forming a fringe round Assam and the Lower Provinces of Bengal.

2. The aboriginal feudatory chiefships, consisting of Ghond and Koli tribes in Chota Nagpur, Orissa, the Central Provinces, and Jaipur.

3. The principalities along the slopes of the Western Himalayas, from the west of Nepal to Cashmere, mostly ruled by Rajputs.

4. The Afghan frontier tribes beyond the Indus.

5. The Sikh states on the Sirhind plain.

6. Three Mahomedan states, geographically apart, but otherwise closely associated, namely, Rampur in Rohilkand, Bahawalpur between the Great Desert and the Indus, and Khairpur in Sind.

7. The states and chiefships of Malwa and Bandélkand in Central India—the former founded by Mahratta conquerors, and the latter representing the older Rajput power.

8. The ancient kingdoms of Rajputana.

9. The Guzerati group of states in the north of the Bombay presidency.

10. The Mahratta group in the south of the Bombay presidency.

11. The great Mahomedan state of Hyderabad, in the Deckan.

12. The Malayalim states of Travancore and Cochin on the Malabar Coast, in the far south.

Nepal. The Gurkha* kingdom of Nepal lies among the deep ravines and ridges of the Himalaya, where the three tributaries of the Ganges, the Gogra, Gandak, and Kosi take their rise. In its rear are the loftiest mountain peaks on the globe. Its constitution is democratic, every little village being independent. The Gurkha dynasty rose to power in 1767, in 1792 the state was invaded by China, and in 1814 repeated acts of insolence brought upon the Gurkhas the chastisement of a British force. A Resident is stationed at Khatmandu, whose observations are jealously restricted to a narrow circle; while, greatly

* Lawrence's *Nepal.*—*Journal of the Royal Asiatic Society*, vol. i. pp. 258-279. *The Law and Police of Nepal*; by B. H. Hodgson.—*Asiatic Researches*, vol. ii. Father Giuseppe's Account of Nepal.—Kirkpatrick's *Account of the Kingdom of Nepal.*—F. Hamilton's *Account of the Kingdom of Nepal.*

to the detriment of our prestige in India, no other European is permitted to cross the frontier. The area of Nepal is believed to be about 54,000 square miles, the population 3,000,000, and the revenue about £430,000. Statistics.

Sikhim is a little principality on the eastern border of Nepal, lying in the basin of the Tista, and overshadowed by the most stupendous mountains in the world. The area is about 1,550 square miles, chiefly consisting of forest-covered mountains and deep ravines; and the population of Lepcha, Bhutia, and Limba highlanders numbers about 7,000. The capital is Tamlang. *Sikhim.* Statistics.

On[1] the east Sikhim is bounded by Bhutan. This country is governed in spiritual matters by a Dhiwan Rajah, and in temporal affairs by a Deb Rajah. Insolence to our envoy, the Hon'ble A. Eden, led in 1865 to an armed expedition against Bhutan, and the annexation of the Duars, or passes leading from the mountains into the Darrang and Kamrup districts of Assam. The population is estimated at 20,000. *Bhutan.* Population

Kuch Behar is a small state at the foot of the Duars, which, when we expelled the Bhutias in 1772, agreed by treaty to acknowledge its subjection, and pay a large tribute. The area is 1,292 square miles; the population numbers 532,565 souls; the revenue is about £92,066; and it pays the Paramount Power a tribute of £6,770 per annum. *Kuch Behar.* Statistics.

The[2] frontier between Burmah and Assam is occupied by wild tribes of the Turanian type, who cost us a good deal of trouble and annoyance, but who, being in a purely savage state, are politically inconsiderable. The names of the Lushais and Dufflas will be familiar from the punishment it has recently been necessary to inflict upon them. Wild tribes

Our political relations with the little state of Manipur on the Burmah frontier began as long ago as 1762. In 1823 the Rajah was declared independent, and in 1835 a Political Agent was appointed. The state has an area of about 7,584 square miles. *Manipur.*

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[1] *Calcutta Review*, vol. xlviii., pp. 92-117.

[2] *Geographical Magazine*, October 1st, 1874, p. 310 (*The Peoples between India and China*; Sir G. Campbell).—*Asiatic Researches*, vol. x., p. 202.

Wild tribes.

Our space will not permit of our entering into details regarding either the aboriginal chiefships among the wild hills that overlook the littoral provinces of Orissa and Vizagapatam, the wild tribes of Central India, or the small feudatories of Jaipur.

The Himalayan group.

The native states along the slopes of the Western Himalayas were revived by the British Government after the Nepal war in 1814. They had nearly all been overrun by the Gurkhas, and the chiefs were fugitives or reduced to poverty. All are under the Panjab Government, except Garhwal, which is under that of the North-West.

Garhwal.

After* the war, the old Rajah of Garhwal was found living at Deyrah in indigence; his successor now rules over 200,000 people, and enjoys an annual revenue of £8,000.

States under Panjab Govt.

Including Cashmere, there are thirty-two Himalayan states under the Panjab Government. They are thus grouped :—

Trans-Satlej States.

Cashmere, Chamba, Mandi, Sukeit, Kailut, Bassahir.

Cis-Satlej States.

Mangal, Bhagal, Bhajji, Shangri, Kumharsain, Kotgarh (or Grukote), Kanuti, Keonthal, Kothi, Madhan, Theog, Gund, Pandar, Raiengnoh, Balsan, Dargoti, Tarochi, Mailog, Bega, Baghat, Kuthar, Kunhiar, Dhami, Nalagarh, Nahan, Jubal.

Cashmere.

Cashmere† is a state of very considerable importance. It was founded by Gulab Singh, a Dogra Rajput. He began life as a trooper, and afterwards rose to a high command in the army of Ranjit Singh, who gave him the principality of Jamu. He subsequently extended his authority over Ladakh and Cashmere, and finally in 1846, for the sum of one million‡ pounds sterling, induced the English to yield to him the sovereignty, and secure it by treaty.

* *Calcutta Review*, vol. xviii., pp. 72-115 (Kumaon and Garhwal).

† Vigne's *Cashmere*. Dr. Ince's *Guide to Cashmere*. Moorcroft's Journeys, &c. (Account of Shawl Trade, &c., in Cashmere.)—*Calcutta Review*, vol. xxxiii., pp. 158-185; vol. ii., pp. 489-538; and vol. xiv., pp. 209-220.

‡ He is said to have found nearly £800,000 of this purchase-money among the forts of his new kingdom. *Calcutta Review*, vol. xxviii., p. 381.

The population is computed at [illegible], and the annual revenue amounts to [illegible]. A military force of 26,975 men is maintained. One horse, twelve shawl-goats, and three pairs of shawls are paid yearly to the British Government as tribute. *Statistics.*

Mandi has an area of 1,080 square miles, a population of 135,000, and an annual income of £37,000. It pays £10,000 a year as tribute. *Mandi.*

Chamba has an area of 3,216 square miles, a population of 110,000, and a revenue of £18,550. It pays a tribute of £500 per annum. *Chamba.*

Patiala* is the principal Sikh state in the Sirhind plain. It has an area of 5,412 square miles, a population of 1,650,000, and a revenue of about £380,000. *Patiala.*

Jhind territory is estimated at something less than 900 square miles, with a population of 189,475, and a revenue of £40,000. *Jhind.*

The Rajah of Nabha rules over 863 square miles, containing a population of about 227,155 souls. His revenue amounts to £65,000. *Nabha.*

The rulers of Patiala, Jhind, and Nabha have a common ancestor in one Choudri Phul, a Sidhu Jât, who rose to power about two centuries ago. They are commonly denominated the Phulkian chiefs. *Choudri Phul.*

The Rohilla state of Rampur lies on the Ramgunga in the basin of the Ganges. It has an area of 1,140 square miles, and a population of 485,000 souls. The annual revenue is about £100,000. *Rampur.*

The† great Mahomedan state of Bahawalpur is a bright example of the benefits that accrue to native territory from British management during minorities. This principality lies between the Satlej, Chenab, and Indus, and the Great Desert. Its extreme length is 300 miles, the mean width of populated and cultivated territory about 20, and the total area about 15,000 square miles. When the late Nawab died, the state was in the last stage of political decay. The treasury was empty; the officials of all grades hopelessly in arrears, and living on the people; the army starving and mutinous; the canals, upon which the material prosperity of the country entirely depends, neglected and ruinous; and every honest and *Bahawalpur.*

* *The Rajahs of the Punjab*; Lepel Griffin.
† See *Ocean Highways* for March 1874.

able man in the country suspiciously watched, and liable to imprisonment and assassination at any moment. Now,* after a period of about nine years of English rule, Bahawalpur is one of the most flourishing states in India. A highly-organised administration watches over its material and moral interests; great tracts of land have been reclaimed from the desert; old canals have been repaired and new ones constructed; a small but well-disciplined military force has replaced the armed rabble of the late *régime;* an admirable judicial system is in full working order; and the young chief, a manly, active boy, is being brought up in the right way.

Improvements.

Khairpur. Khairpur is bounded by the Indus on the west and Jesalmir on the east. It is about 120 miles long by 70 broad, having an area of 6,109 square miles. It consists of a great alluvial plain divided into six districts, and has 106,888 cultivated acres watered by six canals. The revenue is collected in kind on the old *battai* system, and yields about £45,350.

Gwalior. The most important Mahratta state of Central India is Gwalior. It is divided into 58 districts with 12,390 villages, yielding a land-revenue of £655,885. The customs yield an annual income of £60,000, and the tribute of feudatories £139,078. An army of 22,539 men and officers is maintained.

Indore. Indore is the second great Mahratta state of Central India. It has an area of 8,318 square miles, a population of about 576,000 souls, and a revenue of about £300,000 a year. An army of 24,800 infantry, 3,300 cavalry, and 24 field-guns is maintained.

Bhopal. Bhopal is the chief Mahomedan state of Central India. It lies across the Vindhya mountains, between Indore and Sagar, resting its southern frontier on the Narbadda. It has an area of 6,746 square miles, a population of 663,656, and the annual revenue is £137,625. A princess rules over Bhopal, who is decorated with the Grand Cross of the Star of India.

Bandelkand. The† eastern part of the great triangular plateau

* The credit of the improvement is mainly due to Colonel Minchin, the present Political Agent.

† The *N. W. Provinces Gazetteer.* Descriptive, Historical, and Statistical Account of Bandélkand; by E. Atkinson, C.S.

of Central India is called Bandélkand. On the west it is inhabited by the Hindu tribes of Bandélas, and on the east by the Bhagélas. To the west is the river Betwa, flowing to the Jumna; to the east is the Sone, an affluent of the Ganges.

Rewah. The largest of the native states on this plateau is Rewah. It extends from the Tonse across the Kaimur range, and beyond the Sone to the sources of the Amarkantaki, having an area of 12,723 square miles. The population amounts to 1,280,000, and the annual revenue to £260,000.

Urcha. Urcha is a state having an area of 2,160 square miles, and a revenue of about £60,000.

Rajputana. The* most ancient sovereignties of India cluster round the Aravalli mountains, and the valleys bordering on or within the Great Desert.

Mewar. Among the princes of Rajputana, the Maharana of Odeypur is highest in rank. His family traces its descent from Rama, and has been of great importance for upwards of sixteen hundred years. The state, known as Mewar, has an area of 11,614 square miles, with a population of 1,161,400. The revenue is about £400,000, of which £120,000 is enjoyed by the nobles.

Jaipur. Jaipur was founded in 967 A.D. The Maharajah also claims descent from Rama. The area of the state is 15,000 square miles, the population about 1,900,000, and the revenue £423,165. About £35,000 a year is spent on public works.

Jodhpur. The state of Jodhpur, or Marwar, was founded in A.D. 1459. It has an area of 35,672 square miles, a population of about 1,783,600 souls, and a revenue of £175,000 a year.

Alwar. The young Maharao Rajah of Alwar rules over some 3,000 square miles, having a population of about 778,596 (259·3 to the square mile). This state, which was not long ago in a ruinous condition, is now politically healthy, the administration having been taken out of the hands of a debauched and incorrigible chief. The income is £205,000,

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* Todd's *Rajasthan.—History of the Rajput Tribes.*—Todd's *Personal Narrative.* For a good account of the Rajputs, see Dubois' *Description &c. of the People of India.*

and the disbursements £165.000. The Rajputana State Railway runs through Alwar.

Jesalmir. Jesalmir lies in the Great Desert. The capital is one of the finest native cities in India. It is built entirely of stone, generally elaborately carved. The Maharawal's rule extends over an area of 12,252 square miles, having a population of 70,000.

Bikanir. This* is another state lying in the heart of the Great Desert. The area is about 17,676 square miles, and the population about 539,000.

Dholepur. The little Jât state of Dholepur has an area of 1,626 square miles, and a population of about 500,000.

Bhartpur. The territory of the Jât ruler of Bhartpur embraces an area of 1,974 square miles, having a population of 650,000. The annual revenue amounts to £242,000.

Tonk. Tonk is the only Mahomedan state in Rajputana. Area, 1,800 square miles; population, 182,000; revenue, £108,000.

Bombay States. The native states of the Bombay presidency occupy 63,625 square miles, or one-third of the entire area, having a population of 9,250,000 souls. They may be divided into the Mahrathi principalities of the south, and the Guzerati of the north.

Baroda. The chief northern state is that of Baroda, of which we have recently heard so much. At the beginning of the eighteenth century, the Gaikwars were Mahratta leaders, feudatories of the Peishwas,† and farmers of the revenue over a vast region, including parts of Guzerat, Khandeish, and Kattiawar; but in 1780, a treaty, offensive and defensive, with the Bombay Government, acknowledged the Gaikwar's independence of the Mahratta chief. Baroda has a population of 2,600,000 souls, and produces an annual revenue of £1,500,000.

It is needless to allude to the events which led to the deposition of Mulhar Rao on the 14th January

* Elphinstone's *Account of Cabul.* (Journey Thence.) *Geographical Magazine*, November 1st, 1874, p. 316.—A Reminiscence.—

"A fort has Delhi, Agra too, a half one Bikanir;
But best of all the Bhati built, the fort of Jessalmir."—
Translation of Local Legend.

For a detailed account of the Great Desert, see *Journal Royal Geographical Society*, vol. xl., 1870.

† The representative of the Peishwas is an amiable youth, who resides at Bareli in Rohilkand, and receives a small pension from Government.

1875, and the adoption by Rani Jumnabai—widow of Khunderao Gaikwar—of a young boy, from the Khandeish line of Gaikwar princes, to the *gadi* (or 'cushion,' as the throne is called and in reality is) of Baroda, under the title of Siyajirao Gaikwar. The administration of the state is conducted by the Prime Minister, Sir T. Madhav Rao, K.C.S.I., assisted by the Special Commissioner and Agent for the Governor-General of India for Baroda. Under Sir T. Madhav Rao, important reforms in the administrative machinery are in progress. The Revenue Department—at the head of which is Kazi Shahabudin, late Dewan of Kutch—is being completely reformed. The different Mahals, or districts, are to be placed on an equal basis; hitherto certain Mahals were too large to be properly controlled and supervised, whilst others were too small. The new constitution of the Mahals will bring each within a compass that will admit of its being thoroughly supervised, so that any defect in administration may be easily detected. Over each Mahal will be placed an efficient Mamlatdar on a liberal salary. A High Court has been newly constituted, and two gentlemen from Bombay have been nominated to preside over it. The Educational Department is to be thoroughly re-organized, and Sir T. Madhav Rao proposes to have a college at Baroda. Public works are being pushed forward with energy; and a project is now under contemplation to supply Baroda with water from the river Narbadda. Municipal institutions are receiving a fair share of the Dewan's attention. The filth, which has rendered the city of Baroda a home of pestilence, is being got rid of.

Recent events.

Important reforms.

Kutch is situated on the coast of Western India, north of Kattiawar. It is bounded on the north, east, and south-east by the Runn; on the south and south-west by the Gulf of Kutch and the Indian Ocean; and on the north-west by the eastern branch of the Indus, or the Runn which lies between that and the territory of Sind. The extreme length from east to west is about 170 miles, and its extreme breadth 50, while in one place it is only 15 miles wide, and for a considerable distance not much more. The reigning prince is Maharajah Rao Shri Sir Pragmalji Bahadur, G.C.S.I. He is about thirty-seven years

Kutch.

Boundaries.

of age. He came to the throne about the close of July 1860, on the death of his father, Rao Desulji —a most intelligent prince. His Highness Rao Pragmalji's administration has been marked by several improvements, of which the most noteworthy are the discontinuance of *veth*, or forced labor: Reforms. abolition of *suttee* and *sumadh* (voluntary burning and burying alive); abolition of the slave-trade; prohibition of torture to extort confession from the accused; introduction of a gold coinage known as mohurs and kories. It has never been the custom of the Raos of Kutch to leave their territory either for pleasure or travel. The present Rao has, however, overcome these prejudices, owing to his English education and enlightened views. He came to Bombay in March 1870, on the occasion of the visit of His Royal Highness the Duke of Edinburgh to that place; and a second time in November 1872, when Lord Northbrook held a grand chapter of the Star of India for the investiture of Her Highness the Begum of Bhopal and the Hon'ble, now Sir John, Strachey. His Highness has two sons and one daughter. The name of the heir-apparent is Prince (or Kuvar) Bapu Bha—a very intelligent lad of about twelve years of age. Cotton Products. is the staple product of Kutch. Alum is another article of produce. Wool is also exported in pretty large quantities. The revenue of Kutch is Revenue. estimated at about £200,000, of which £20,000 are paid to the British Government, partly as a pecuniary equivalent for the transfer to His Highness of the town and district of Anjar, and partly to meet the expenses of the British troops stationed in the province. The important and well-to-do classes in Bombay known as Bhatias, Khojas, Memons, Lowanas, &c., are natives of Kutch.

Pahlanpur Group. The Pahlanpur group of states, eleven in number, lies to the north of Baroda. These small principalities contain an area of 2,700 square miles. The most important chief is the Dewan of Pahlanpur, who enjoys a revenue of £40,000 a year.

Mahi Kanta. The group of states in the Mahi Kanta occupies an area of 4,000 square miles, with a population of

447,000 souls. The principal state is that of Edur, which has an annual revenue of about £60,000. There are besides 78 petty chiefs, most of them the descendants of notorious freebooters.

Rewa Kanta.

The only important chief in the Rewa Kanta is the Rajah of Rajpipla. He enjoys a revenue of £80,000. There are five other states, and 59 petty chiefships.

Kattiawar.

The* peninsula of Kattiawar teems with princelets. It has an area of 20,000 square miles, and a population of 2,321,833 souls. There are four chiefs of the first class, among whom the Nawab of Junagarh stands first. This chief has a nominal revenue of £200,000, while the population of his state only numbers 380,900 souls.

First-class Chiefs.

Second-class Chiefs

There are nine Kattiawar chiefs of the second class. Their populations vary from 20,000 to 130,000. Their aggregate revenues are £266,700.

The Rajkumar College.

The Rajkumar College, which was established for the education of the young chiefs of Kattiawar, is making excellent progress. It is now educating 22 young noblemen, who, in addition to the usual studies of a school, are taught gymnastics and instructed in horsemanship.

The native states in the south of the Bombay presidency represent the remains of the Mahratta empire. A descendant of Sivaji rules over Kohlapur. Area, 3,184 square miles; population, 802,691; revenue, £132,446. The state of Sawantwari forms the most southern part of the Konkan. Area, 800 square miles; population, 190,814; revenue, £27,284. The rulers of these two principalities, Kohlapur and Sawantwari, the representatives of the great piratical chiefs of the last century, are eleven and twelve years of age respectively. Political officers of the British Government are administering their states, while they are being educated together under a tutor.

Kohlapur.

Sawantwari.

Savanur.

The most southerly state in the Bombay presidency is that of Savanur. Area, 66 square miles; population, 17,187; revenue, £8,167. The chief is a Mahomedan of Afghan descent—a boy of twelve, now under tuition at Dharwar.

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* *Calcutta Review*, vol. xxxv., pp. 464-495.

Nineteen states in the Bombay presidency, with a population of 4,759,523 souls, are now under direct English management, owing to the minority of their chiefs.

Hyderabad. By far the largest and most important native state in India is that ruled over by the Nizam ;* it is the Moghal *Subah* of the Deckan. It was founded by Asaf Jah, a son of one of Aurangzib's officers, who, after a long life of political intrigue at Delhi, established his independent power as Subedar of the Deckan in 1724, with Hyderabad, on a tributary of the Krishna, as his capital. During the present Nizam's minority, Sir Salar Jang, G.C.S.I., a minister of remarkable ability, and Sir Shumshu-ul-Umra, K.C.S.I., administer the state ; receiving counsel from the British Resident. The army *Statistics.* numbers about 30,000 men, chiefly cavalry, of whom 6,000 are Arabs. The area of this great state is about 95,337 square miles, while the population exceeds 10,500,000 souls.

Mysore. We † have spoken of this state elsewhere, as for many years it has been under direct British management. The young Rajah is receiving a most careful education under the supervision of Colonel Malleson ; and every effort is being made to impart a liberal and manly tone to his tastes, by instruction, travel, and the nobler sports. When his minority terminates, he will succeed to a flourishing exchequer, and to a thoroughly organised system of land-revenue.

Northern Sircars. Since 1802, the chiefs of the Northern Sircars have not exercised any judicial functions, and are now mere *zamindars*, or landholders. The principal of *Vizianagram.* these is the Maharajah of Vizianagram, K.C.S.I., a prince of the most enlightened understanding and of excellent education. His Highness is a member of the Legislative Council of the Viceroy.

Cochin. Cochin‡ is a state containing an area of 1,131 square miles, population, 400,000 ; revenue, £125,458.

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* *Our Faithful Ally, the Nizam :* Colonel Hastings Fraser.

† *Calcutta Review*, vol xlvi., pp. 328-348. Buchanan's *Journey through Mysore.*—Elliot's *Experiences of a Planter in the Jungles of Mysore.*

‡ Our limited space prevents our giving some account of the Zamorin of Calicut, "Lord of the Rajahs," whose authority extended over as wide an area as the crowing of a cock from a particular temple could be heard through.

Travancore.

Far south, between the mountains and the Indian Ocean, lies a rich, damp country, which in the eighteenth century was brought under the authority of the ancestor of the present Rajah of Travancore. The area is 6,653 square miles; the population about 1,300,000; and the annual income nearly a million sterling, while the expenditure only amounts to £549,365. Cochin and Travancore are perhaps the two most flourishing native states in India.

The Great Native Princes.

Title.	State.	Annual Revenue.	Guns.	Remarks.
Sir Jang Bahadur, G.C.S.I., K.C.B., Minister	Nepal	£430,000	21	Has visited Europe: a very able ruler.
Maharajah Runbir Singh, G.C.S.I.	Cashmere	£843,000	19	A fair Hindi scholar.
Maharajah Mahindar Singh, G.C.S.I.	Patiala	£380,000	17	An intelligent ruler; speaks English and Persian.
Rajah	Jhind	£40,000	11	An able, active, and popular old prince; conspicuously loyal to us.
Rajah	Nabha	£65,000	11	A ruler of some ability.
Nawab	Rampur	£100,000	13	Aged 39; well read in Arabic and Persian.
Nawab Sadik Mahomed Khan	Bahawalpur	£181,034	17	A smart boy of fourteen; a good polo-player.
Nawab Ali Murad Khan Talpur	Khairpur	£45,350	..	Sixty years of age.
* Maharajah Scindiah, G.C.S.I.	Gwalior	£854,961	19	A very enthusiastic soldier
† Maharajah Holkar, G.C.S.I.	Indore	£300,000	19	A keen financier.

* In February 1873, Scindiah held a camp of exercise at Gwalior, consisting of 5,000 infantry, 3,470 cavalry, and 40 guns: he himself commanded the attacking party, and shared the bivouac with his men. In the last century, the ancestor of Scindiah, who founded the family, was a slipper-bearer to the Peishwa.

† Holkar is a *sudra*, of the shepherd caste.

Title.	State.	Annual Revenue.	Guns.	Remarks.
* Begum, G.C.S.I.	Bhopal	£137,625	19	A clever and popular princess.
Maharajah, G.C.S.I.	Rewah	£260,000	17	A somewhat unsuccessful administrator.
Maharana	Odeypur	£400,000	17	A mere boy, being educated by a native tutor.
† Maharajah, G.C.S.I.	Jaipur	£423,165	17	One of the most able and enlightened rulers in India. A member of the Legislative Council of the Viceroy.
Maharajah Tukt Singh, G.C.S.I.	Jodhpur	£175,000	17	
Maharajah Jai Singh Pal	Karauli	£45,000	17	An intelligent, well-meaning chief.
‡ Maharao Rajah	Alwar	£205,000	15	A fine boy, distantly related to the late ruler: being educated by the Central Asian traveller, Pandit Manphul, C.S.I.
Maharajah	Bhartpur	£242,000	17	A Jât, who is very jealous of his dignity.
Maharawal	Jesalmir	....	17	A young and amiable prince.
Maharajah	Bikanir	....	17	
Rana	Dholepur	....	15	A bright boy; being educated under Major Dennehy's supervision.
Gaikwar	Baroda	£1,500,000	21	A boy; being educated by a native tutor.
Maharajah Rao Shri Sir Pragmalji, G.C.S.I.	Kutch	£200,000	17	A most intelligent and enlightened prince, ruling over a contented population.
Nawab, K.C.S.I.	Junagarh	£200,000	11	
§ Rajah	Kohlapur	£132,446	19	A boy of eleven; being educated by a tutor, together with the young Rajah of Sawantwari.
‖ The Nizam, Mir Mahbub Ali Khan	Hyderabad	....	17	A child under guardianship of Sir Salar Jung and Shumshu-ul-Umra.

* Contrary to the usual practice of seclusion of eastern ladies, the Begum goes about everywhere. Not long ago she visited Calcutta, was present at evening parties at Government House, and at a chapter of the Star of India.

† Jaipur was a friend of Lord Mayo, and had once the honor of being his host. On that occasion he showed the viceregal party most excellent pig-sticking.

‡ This boy was the son of an Alwar Thakur distantly related to the debauchee who lately vacated the *gadi*. He was chosen by Captain Powlett (by the Rani Dowager nominally) for his general intelligence. He has pleasant manners and great skill at badminton. He is a promising boy, and justifies the Political Agent's discrimination. His stud, of some 250 horses, is well worth seeing, as is his fine oriental library.

§ The predecessor of the present prince died, it will be remembered, at Florence.

‖ This boy will be, if he lives, the most important native prince in India.

Title.	State.	Annual Revenue.	Guns.	Remarks.
Rajah	Mysore	....	19	A boy of fourteen, being educated under Colonel Malleson's supervision.
* Maharajah, K.C.S.I.	Vizianagram	....	13	A highly educated and intelligent nobleman; a member of the Supreme Legislative Council.
Maharajah	Benares	....	13	A fine old nobleman, who lives in a picturesque castle overlooking the Ganges.
The Muta Tambaran, or Rajah Rava Varma, K.C.S.I.	Cochin	£125,458	17	Aged forty-seven. A very enlightened ruler.
Rajah Rama Warma, G.C.S.I.	Travancore	£957,577	19	An amiable and accomplished prince. Has recently made the grand tour of India.

The Secondary Chiefs.

Maharao Rajah	Bundi	£50,000	17	
Maharao	Kotah	some £240,000	13	Kotah was until recently one of the most misgoverned states in India
Maharajah	Kishengarh	£60,000	15	The father of two promising lads.
Rao	Serohi	£23,444	15	Ceded Mount Abu to us on condition that no cows or pigeons were killed.
Maharawal	Dungurpur	£7,500	15	A most intelligent prince
Maharawal	Pertabgarh	£26,000	15	A fair ruler.
Maharawal	Banswarra	£30,000	15	
Nawab	Tonk	£108,000	..	
Rajah	Kalsia	£13,000	11	A young chief not yet entrusted with the government.
Nawab	Maler Kotla	£25,900	11	A youth.
Rajah Bikram Singh	Faridkhôt	£30,000	11	A man of thirty.
Rajah Anandrao Puar	Dhar	£43,700	15	This family was distinguished in early Mahratta history.

* The munificence, hospitality, and genial qualities of this nobleman have deservedly rendered him a favorite with the European community. He speaks English with remarkable purity, and, among other accomplishments, is a most skilful billiard-player.

† This fine old gentleman, 'quite of the olden time,' who lives in right royal style in his fortress of Ramnagar, nearly opposite Benares, is also very popular with the Anglo-Indians of the Bengal side. He can show excellent tiger-shooting from *machans* (high platforms), and English ladies have often accompanied their husbands to his tiger-parties. He himself, before his eye-sight failed, was a magnificent shot.

Title.	State.	Annual Revenue.	Guns.	Remarks.
Nawab	Jawra	£65,524	13	His poppy lands yield 100 chests of opium a year.
Rajah.....	Urcha.....	£60,000	11	
Rajah.....	Dattia	....	11	
Jam.....	Nananagarh ..	£150,000	13	

Among the principal frontier chiefs of the Panjab are the following,—all of whom, with one exception, the writer has seen, and for whose picturesquely wild appearance he can vouch. Many of them wear their hair in long curls falling over their shoulders, and are partly clothed in skins; none are ever seen without formidable weapons, often worn rather for use than ornament.—Ata Mahomed Khan, chief of Agror; Muzaffar Khan of Hangu, chief of the Upper Bangashes; Mahomed Sarfaraz Khan, Khan Bahadur, the principal chief of the Isa Khel; Muzaffar Khan, Khan Bahadur, chief of Kalabagh; Sher Mahomed Khan, Tumandar of the Mazaris; Bahadur Khan, Tumandar of the Khosas; Miran Khan, Tumandar of the Drishak clan; Ghulam Hyder Khan, Tumandar of the Gurchanis; Ghulam Hyder, Tumandar of the Sunds; Fazl Khan, Tumandar of the Kasranis; Jamal Khan, Tumandar of the Lagharis; Dost Mahomed Khan, chief of the Bozdar tribe; Mahomed Sarfaraz Khan, Arbab of the Momand clan; Rajah Jahandad Khan, chief of the Gakkar tribe in Hazara; and Mahomed Guldad Khan, chief of the Gandapurs of Kulachi.

CHAPTER V.

COMMUNICATIONS.

1.—Railways.

The first Railway Project.

The E. I. Railway Project.

The* first Indian railway project was broached in the latter end of 1844 by Mr. (afterwards Sir) Macdonald Stephenson, who submitted to the India House a scheme for a line from Calcutta to the North-Western Provinces, based upon minute information and statistics collected by himself on the spot. He had already, in the early part of the year, published a pamphlet on the subject, together with a sketch map of the principal lines on which, according to the best information then available, the construction of railways appeared likely to prove beneficial to the country, and profitable to the shareholders. Concurrently with this movement, an effort was made by Mr. Chapman on the Bombay side to interest Government in the establishment of railways in that presidency. He was recommended to submit his proposals to the India House, and they resulted eventually in the Great Indian Peninsula line. In the following year, a similar scheme emanated from Madras; but it was not until 1852 that the Hon'ble East India Company conceded a guarantee for an experimental line, running in a westerly direction from Madras.

The G. I. P. Railway Project.

The Madras Railway Project.

To have raised money in England, however, in the usual manner, for so remote and precarious an enterprize, would have been impossible, had not the Government of India guaranteed a fixed interest on the borrowed capital. According to the contract with the shareholders, this sub-

The Guarantee.

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* *Report from the Select Committee* (of which Lord Northbrook was an active member) *on E. I. Railways*; printed by order of the House of Commons, July 13th, 1858. The *Quarterly Review*, July 1868, article on Indian Railways. *Report to the Secretary of State for India on Railways in India*; by Ireland Danvers, Government Director Indian Railway Companies, presented to Parliament by order of Her Majesty. The following numbers of the *Calcutta Review* contain articles on Indian Railways:—vol. xix., p. 19; vol. vii., p. 32; vol. xi., p. 31; vol. vii., p. 321; vol. v., p. 221. *The Railways of India*; by Captain Davidson.

vention extended no further than to the payment of five per cent. interest on the capital raised —which is to say, that, in the event of the receipts not being sufficient to cover the working expenses, the deficiency was liable to be made good from the guaranteed interest. This, however, was misapprehended by the shareholders ; and when the Calcutta and South-Eastern Railway proved a failure, the Government of India, with judicious liberality, accepted their view of the contract, and not only refunded their capital in full, but granted a *dividend* of five per cent. from the date of its investment.—In return for the Guarantee, it was agreed that—

The Contract.

"The said Railway Company, and their officers, servants, and agents, as also their accounts and affairs, shall in all things be subject to the superintendence and control of the East India Company, as well in England as elsewhere ; and in particular, no bye-laws, contracts, orders, directions, proceedings, work or undertakings, acts, matters or things whatsoever, shall be made, done, entered into, commenced, and prosecuted by, or on the part of, the said Railway Company ; and no money shall be raised, and no extension of the number of shares, or of the amount of its capital, shall be made, unless sanctioned by the East India Company."

At the end of ninety-nine years, moreover, the whole line was to become the property of Government ; but the Company could immediately surrender it, and demand back their capital. After the lapse of twenty-five years, the Government could claim to purchase the line ; or, if default were made in raising funds, or executing the works, or managing the line to the satisfaction of the Governor-General, he might assume possession of it, repaying the capital.

The railways constructed on this basis are eight in number. The first in point of magnitude is the *East Indian* (in all, 1,504 miles). Its main line extends from Calcutta to Delhi, through the Gangetic valley—a distance of a thousand miles—with a branch to the Burdwan collieries, which, prolonged to Luckieserai, forms a chord line (124 miles). It has also a line from Allahabad to Jabalpur, joining there the *Great Indian Peninsula* line (1,278 miles) from Bombay. This railway, in addition to its line from Bombay to Jabalpur, has also a line to Raichur, meeting the rail proceeding north-west from Madras. Thus, Bombay, the great passenger, military, and postal port, is connected, on the one hand, with the seat of government in Southern India,

The E. I. Railway.

The G. I. P. Railway.

and on the other with the great commercial centre on the Hughli. The *Madras Railway* has two lines moving in different directions—the south-western, crossing the peninsula to the western port of Beypur, with a branch to the important military station of Bangalore; and the north-western, already referred to as communicating with Bombay. The *South Indian Railway* is intended to promote the trade and industry of the rich provinces in the south of Madras, and to connect the important city of Trichinopoly with the sea-coast. The *Bombay and Baroda Railway* runs north for 406 miles to the cotton-fields of Guzerat. The *Eastern Bengal* extends 156 miles to Goalundo, affording facilities for conveying the vast produce of the eastern districts to Calcutta in a few hours, and thus avoiding the circuitous route of the Sunderbands, which occupies more than a week. The *Scinde, Panjab, and Delhi Railway* has two lines—one extending from the port of Karachi to Hyderabad, the capital of Sind; the other from Multan to Lahore and Amritsar, and thence to Delhi, joining the *East Indian*. The* *Oudh and Rohilkand Railway* runs through the most fertile and populous districts of India, articulating with the *East Indian* line at Moghal Serai, Cawnpore, and Aligarh; and tapping the great cities of Benares and Lucknow, as well as the large towns Shahjehanpur, Bareli, and Muradabad.

The Madras Railway.

The S. I. Railway.

The Bombay & Baroda Railway.

The Eastern Bengal Railway.

The S. P. & D. Railway

The Oudh and Rohilkand Railway.

These lines are being supplemented by railways constructed immediately by the Government of India. The most important of these will connect Lahore with Attok on the Indus; and is already open to Wazirabad. This will enable us, in cases of necessity, to feed our most assailable frontier with troops from the great military stations of the North-Western Provinces and the Panjab. The distance it will traverse is 270 miles. The next state railway, in order of importance, is what is locally termed "the missing link," the *Indus Valley Railway* (480 miles), running from Multan to Bahawalpur and Rohri, and thence to Kotri along the right bank of the Indus, which it crosses at Rohri. This line will bring

State Railways.

The Northern State Railway.

The Indus Valley Railway.

* This is a light railway. Its cost was at the rate of only £6,910 a mile.

northern India into direct communication with the sea at Karachi.

The Rajputana Railway.

The *Rajputana State Railway* (370 miles) runs from Agra by Bhartpur and Jaipur to the Sambhar Lake, being joined at Khera by a branch from Delhi.

The Holkar Railway.

The *Holkar Railway* (86 miles) connects Indore with the Khandwa station of the G. I. P. Railway.

The Mutlah and Nalhatti Railways.

The *Mutlah and Nalhatti* lines, each 28 miles long, are the two state railways of Bengal.

The Bengal Railway.

The Government of India has sanctioned the projected *Bengal Railway*, which is to pass from the Ganges to the foot of the Darjiling Hills, and is to have a length of 204 miles.

Lines in the Central Provinces.

In the Central Provinces, there are several short lines penetrating the coal and cotton districts; and Hyderabad and Nagpur are both connected with the G. I. P. Railway.

Statistics.

There are now some 6,000 miles of railway open in India, which have cost up to date, in round numbers, nearly £100,000,000, giving an average of rather less than £17,000 a mile. In 1873, the net revenue derived from railways amounted to £3,185,000; the gross receipts £6,742,000, and the expenses £3,557,000. The guaranteed interest advanced by the Government was £1,428,442 in excess of the revenue.

A new era.

The introduction of railways forms a new era in the history of public works in India. It was this department of the administration that the East India Company so grievously neglected. During its rule of a century, save across a few contemptible rivulets, not a single bridge was thrown; whereas the railway companies within the last twenty-five years

The great bridges.

have bridged the most rapid and tremendous rivers of Hindustan and the Peninsula. Stupendous viaducts now cross the Ganges, Jumna,* Satlej, Bias, Ramgunga, Adji, Sone, Tonse, Tapti, Narbadda, and Krishna;† to which will soon be added the Ravi,‡ Chenab,§ Jhilam,‖ and Indus (at Rohri).

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* The great bridge over the Jumna at Delhi cost £150,000.

† The piers of this bridge are wrought-iron cylinders filled with concrete, and the superstructure consists of 36 spans of 100 feet, Warren girders.

‡ This will cost £196,617.

§ The bridge over the Chenab will cost £419,397.

‖ The Jhilam bridge is estimated to cost £147,807.

Political importance of railways

It is almost needless to say that the railway system has immensely strengthened our hold of India, and given new vigor and life to its administration. Troops can now be massed at any point where they are required, in as many days as it would, in former times, have taken months to bring them together; while Governors, Ministers, and Commissioners can visit with extraordinary rapidity the remotest parts of their provinces, at the same time that the transmission of their despatches is accelerated fourfold. Nor* should the effect of the railway on the native mind be overlooked. The feeling of acquiescence in a Government which, though alien, is not in any sense oppressive, and in many ways beneficent, grows stronger with the lapse of time, which abates the desire for change. This feeling is abundantly strengthened in India by the marvels of scientific skill we have introduced, of which none are more calculated to strike the native mind with wonder and awe than the thundering locomotive whirling along with wondrous speed its prodigious chain of chariots and waggons. As it sweeps day by day from province to province, it presents to prince and peasant an ever-recurring token of the extent of our dominion, the ubiquity of our power, and the magnitude of our resources. Yet in a still higher sense is it beneficial, inasmuch as it promotes the improvement of the country and the well-being of its inhabitants. It diffuses the wealth of fertile provinces over poorer regions, it multiplies articles of cultivation, and it brings the cornfields and forests of remote inland countries within reach of that great highway, the ocean. As far as its influence extends, it mitigates the horrors of famine. It has a strong tendency to foster the spirit of commercial enterprize, and thereby lessen the fondness for military adventure, which was formerly the chief source of national excitement. It tends to weaken the despotism of caste. It breaks up the old habits of isolation, and opens new circles of social and domestic intercourse. By enlarging the sphere of observation, it creates new desires and new wants. It is gradually arousing the native

Effect on native mind.

Developes resources of country.

* The *Quarterly Review*, July 1868, p. 77.

mind from the lethargy of centuries, and throwing a new element of energy into native society; and it will eventually be found to have introduced a greater and more beneficial change in the thoughts, feelings, and habits of the people than has been effected by any of the political changes of the last eight hundred years.

2.—Roads.

Roads. There are many districts which, from their poverty or the physical obstacles they present, can never be opened up by railways or canals, and, in these, roads are, and must remain, the most important means of communication.

The Grand Trunk Road. The Grand Trunk Road, however, from Calcutta to Peshawur, will soon be quite superseded by the railway, which runs parallel to it; and there are many lesser highways in the same plight: but it will be long before the great* engineering works leading Hill roads. to the Himalayan stations, and to the coffee districts of the Wynaad and the Nilghiris, will be found superfluous; and for many years the littoral districts of Orissa and Ganjam must be satisfied with the south-S.W. Trunk Road. western trunk road communicating with Calcutta.

The Berars. In the Berars, the need of good cotton roads is greatly felt, and the difficulty of maintaining them, extreme, the black soil being, in some places, from 40 to 100 feet deep. As long ago as 1863, £20,000 were expended in keeping the roads then in existence open during the dry season of seven months.

Central Provinces. In 1862 there were not 18 miles of road open throughout the whole of the Central Provinces—a region nearly as extensive as Great Britain—while now two great trunk lines diverge from Nagpur, and branch out in numerous ramifications over every district. Great Bombay. progress has recently been made in the Bombay Presidency in completing the feeders of the Great Indian Peninsula Railway from the sea, across the Mysore. Western Ghâts. In Mysore there are now 1,817

* One of the most important of these is the road leading from Ambala, through the Terai (here in great part cultivated), across the Suwalik range, to Kalka, Kasauli, Subathu, Dagshai, Simla, and on to Kotegarh, Chini, and Pargi, near the borders of Thibet—a distance of nearly 200 miles.

miles of road, of which 529 miles are first-class, metalled and bridged.

In every part of India the local authorities are year by year paying more attention to their roads; metalling the old village tracks, and planting trees on either side of those which are most frequented. Wherever it is found, 'kankar' (nodules of impure limestone) is used for road-making. When damped and pounded, it forms, for a time, a compact and hard surface; but if subjected to severe traffic, it pulverises, and the roads, becoming uneven channels filled with the finest limestone powder, can be traced across the country by clouds of dust raised by the wind.

3.—Canals.

Canals.

Although irrigation is the primary object of our Indian canals, they are usually, at the same time, important channels of communication. As soon as the Sirhind canal works are completed, there will be navigable communication from Calcutta, by the Hughli and Ganges, through the canals into the Satlej, thence into the Indus, and so to the sea at Karachi. The* delta canals of Madras are much used for boat traffic, as well as the high level and Cochrane's canal. But it is in the belts of the greatest rainfall—the delta of the Ganges, the valley of the Brahmaputra, and on the coast of Malabar—that water is most largely used as a means of communication. The rivers in the Bengal districts of Naddia, namely, the Bhagirathi, Mattabangah, and Jalangi, have long been used as fluvial highways: and, on the first of these, a minimum width of 150 feet and depth of 4 feet is maintained. Sir Arthur Cotton's famous Godaveri navigation project occupied the attention of the public for some twenty years, cost £20,000 in preliminary surveys, plans, &c., and was finally abandoned in 1871, after a total expenditure of about a million sterling! The line of water communication parallel to the western coast of India, included in the Malabar and Travancore back-waters, is of the greatest importance. By the completion of the cut through the Warkalli barrier,

Sir A. Cotton's Godaveri Project.

Malabar & Travancore back-waters.

* *Moral and Material Progress of India.*

and by making another cut from the Venjali lake to the Tirur station of the Madras Railway, there will be a continuous line of water communication from Budagivi, north of Beypur, to Trevandrum, the capital of Travancore, whence the Victoria canal will extend 45 miles towards Cape Comorin.

The Ganges Canal.

The Ganges canal is the greatest work of irrigation ever constructed in any country; and as it is also a navigable canal, we may speak of it here. It was

Begun 1848.

begun in 1848 by Sir Proby Cautley. After leaving the Ganges, the canal had to encounter serious difficulties from mountain torrents. These were either made to flow across the channel on the same level, or carried over it at a higher elevation, or made to

The Solani Aqueduct.

pass under it. The Solani aqueduct, eighteen miles from the head-works, is 920 feet in length, has 15 arches of 50 feet span, each connected on either side by an earthen embankment, raised nearly 30 feet above the valley of the Solani, which it traverses for a distance of about three miles. Running through the *Doab* that lies between the Ganges and Jumna, the canal throws off branches, at intervals, which are adapted for internal navigation, as well as

Length.

irrigation. The main line is 181 miles long, and bifurcates at Nanun in the Aligarh district. The right branch falls into the Jumna in the Etawah district, and the left into the Ganges at Cawnpore. The entire length of the main canal and branches amounts to 614 miles; in addition to which, there are

Opened 1854.

3,111 miles of distributaries. The canal was opened by Lord Dalhousie on the 8th of April 1854. In 1872-73 it irrigated 685,170 acres; and the net

Profits.

profits derived from irrigation were £70,764, while those derived from navigation amounted only to £3,237. The Western and Eastern Jumna Canals are also great works, but our limited space will not permit of our entering into details regarding them.

The Agra Canal.

The Agra navigation and irrigation canal was opened last year at Okhla near Delhi, with great pomp and circumstance, by Sir William Muir, K.C.S.I., then Lieutenant-Governor of the North-Western Provinces. It is estimated that its waters will irrigate 350,000 acres, while it will afford an easy passage for boats of considerable burthen from Agra to Delhi. The

Doabs of the Panjab are watered by inundation canals, some of which, at one season of the year, are available for navigation.

4.—Telegraph and Postal Services.

Telegraphs

A line of telegraph is now in working order along every railway in India; besides which, numerous independent lines connect almost every station in India, where Europeans are resident, with the various centres of government. Three lines of telegraph connect India with Europe.

The Postal Service.

The postal system throughout India has attained a very high degree of efficiency. Railway trains; light carts driven furiously with relays of horses, having all the bravery of red paint, royal arms, and trumpet; running carriers; and horsemen day and night, disperse the orders of Government, the native and English newspapers, and private correspondence, over hill and dale, through jungle, ravine, and river, to every part of the empire. Post-masters in each town of importance, Inspectors of Post Offices in every circle, Post-Master-Generals with all the Local Governments, and a Director-General of Post Offices attached to the Supreme Government, carry on and control the service.—The whole yearly correspondence of India is estimated at 65,000,000 letters; and 6,500,000 newspapers are said to be transmitted through the post office every year. With the progress of education, these numbers are increasing.

CHAPTER VI.

SPORT.

SHOOTING.

The Tiger.

THE* peculiarly striped skin of the tiger, Blyth observes, at once distinguishes it from every other feline animal, and equally so does the intensity of the bright rufous ground hue, so exquisitely set off with white about the head. Unless the lion, no other cat approaches it in the massive proportions of the fore, as compared with the hind, paw. Some of both sexes are made more heavily than others, with a greater development of the fold of the skin along the belly, which adds to their apparent bulk. The stripes, too, vary much in different individuals, and occasionally are almost throughout double. Description.

Jerdon says that the tiger is found throughout all India, from Cape Comorin to the Himalayas, ascending the hills occasionally to an elevation of 6,000 or 7,000 feet. It is found in all the forests and jungles throughout the peninsula, occasionally visiting the more open and cultivated parts of the country; and harbouring in thickets, long grass, and especially in brushwood on river-banks, and on shallows covered with tamarisk. In the Lower Provinces of Bengal, the heavy grass jungles and swamps are its usual lair. In the North-Western Provinces, the tiger is most abundant in the belt of jungle at the foot of the Himalayas, known as 'the Terai.' Distribution.

* For further information regarding tiger-shooting, the reader is referred to the following works, which have been freely used in the text:—Jerdon's *Mammals of India*, p. 92. *Wanderings of a Naturalist in India*; A. L. Adams. *Tiger Shooting in India*; Lieutenant Rice, *passim*. Shakespeare's *Wild Sports of India*, pp. 73-130. Colonel Campbell's *Indian Journal*, pp. 69-73 and 163-185. Forsyth's *Highlands of Central India*, pp. 252-313. Williamson's *Wild Sports of the East*. A good account of a tiger hunt will be found in Bishop Heber's *Journal*. We might add that the illustrations of tigers in Rice's book are the best we have seen.

Dimensions.

The* dimensions of the tiger form a fertile source of discussion among sportsmen. According to Jerdon, the average size of a full-grown male tiger is from 9 to 9½ feet in length; and that naturalist has not seen any authentic account of a tiger that measured more than 10 feet and 2 or 3 inches.

Campbell's tiger.

Colonel Campbell gives the following dimensions of a tiger killed by him, in company with the well-known sportsman Mr. Walter Elliot :—

	ft.	in.
Length from point of nose to point of tail	9	5
Length of tail	2	10
Height from heel to shoulder	3	2
Length from shoulder to point of toe	3	11
From elbow to point of toe	2	0
Girth of body, immediately behind shoulder	5	3
Girth of fore-arm	2	7
Girth of neck	3	0
Girth of head	3	3

With regard to this particular tiger, Mr. Elliot says :

Elliot on tiger dimensions.

"A tiger 9 feet 5 inches may be pronounced by some sportsmen, accustomed to hear of tigers of 12 and even 14 feet in length, to be a small specimen. But such was by no means the case. The animal was a full-sized specimen, of very thick, robust shape, and was measured with scrupulous accuracy. There are various ways in which measurements of large game are taken. Most men content themselves with taking the length of the skin when pegged out to dry, after the beast has been flayed. It is thus that the 12 and 14 feet measurements are obtained. From the examination of a great number of individuals, not less than from 200 to 300, carefully measured, I am satisfied that few tigers exceed 10 feet in length, and that the majority fall short of that limit. There is a great diversity in the length of the tail, which is always taken into the notation of the length."

Rice and Shakespeare's tigers.

Lieutenant Rice, in his charming work on tiger-shooting, mentions several tigers of 11 feet 6 inches, and one of 12 feet 7½ inches. Major Shakespeare speaks of a tiger he shot measuring 10 feet 8 inches; he adds,—"His tail was only 3 feet 3 inches—an extraordinary short tail."

Captain Forsyth, in his *Highlands of Central India*, has the following regarding the size of tigers :—

Forsyth on tiger dimensions.

"I have said that 10 feet 1 inch is the length of an unusually large tiger. The average length from nose to tip of tail is only 9 feet 6 inches for a full-grown male; and for a tigress, about 8 feet 4 inches. The experience of all sportsmen I have met with, whose accuracy I can rely on, is the same; and it will certainly be found that, when much greater measurements than this are recorded, they have either been taken from stretched skins, or else in a very careless fashion. The skin of a 10-foot tiger will easily stretch to 13 or 14 feet, if required."

Wood's tiger.

A tiger belonging to the late King of Oudh was

* An ordinary tiger weighs from 45 to 500 pounds : a fat cow-killer will weigh 700 lbs.

brought to England; and the Rev. J. G. Wood, in his *Natural History*, quoting the animal's keeper, gives its dimensions at 13 feet 6 inches long, and 4 feet 8 inches in girth.

Characteristics. Elliot.

Mr. W. Elliot says that the female tiger has from two to four young, and does not breed at any particular season. Their chief prey is cattle, but they also catch the wild hog, sambar, and more rarely the spotted deer. It is by nature a coward, and always retreats from opposition until wounded or provoked. Although the wild hog sometimes becomes its prey, the tiger occasionally falls the victim. Mr. Elliot once saw a full-grown tiger newly killed by what was evidently the rip of a boar's tusk. It is generally believed that a tiger will not eat carrion; but Elliot on one occasion witnessed a tigress and two full-sized cubs eating a bullock that had died of disease.

Sherwill on tiger habits.

Major Sherwill gave some interesting particulars regarding tigers to Dr. Jerdon, from which we glean the following. Generally speaking, the Bengal tiger is a harmless, timid animal; but, when wounded, he becomes ferocious and dangerous. Except in the vicinity of the Sunderbans, man-eaters are very rare in the Lower Provinces. Young tigers remain with their mother until they are able to kill for themselves. When they first acquire this power, they are far more mischievous than their parents, occasionally killing as many as four or five cows at once; whilst an old one seldom kills more than it requires for food. An old tiger will kill a cow about once a week, and, for this purpose, will quit its place of retreat in the dense jungle, proceed to the vicinity of a village, and kill a bullock or cow. It will remain near the "kill" for two or three days, and sometimes longer, gnawing the bones before retreating to deep cover. We learn from Captain Forsyth that the regular game-killing tiger is retired in his habits, living chiefly among the hills, retreating readily from man. His hot-weather haunt is usually some rocky ravine, where pools of water remain, and shelving rocks or overhanging trees afford him shelter from the sun. He is a light-made beast, very active and enduring, and, from this, as well as his shyness, difficult to bag.

The game-killer.

The cattle-lifter.

The cattle-lifter, on the other hand, is usually an older

and heavier animal, very fleshy, and indisposed to severe exertion. In the cool season, he follows the herds of cattle wherever they go to graze; and then, probably in the long damp grass, he occasionally surprises deer. In the hot weather, however, the openness of the forest, and the numerous fallen leaves, preclude a lazy monster of this sort from getting game: and he then places himself in some strong cover, close to water, where cattle come to drink, and graze upon the greener herbage found by the sides of streams. The man-eater is usually a solitary old tigress, whose teeth and claws no longer permit her to seize either cattle or game. She usually lies close in some deep thicket near a village, and, when an attempt is made to drive her, either refuses to move, or skulks secretly away; but when a solitary footstep is heard, out she flings her mangy old body, and seizes her victim with a hoarse, coughing roar. General Briggs stated, before a parliamentary commission on the growth of cotton in India, that, during the four years he was in Khandeish, he believed there were 350 men carried off by tigers, and 24,000 head of cattle destroyed. In Mr. Markham's *Moral and Material Progress of India* we find the following:—

The man-eater.

"The inhabitants of the border lands between jungle and cultivation are killed and eaten by tigers in such numbers as to require the immediate and serious attention of Government. The following are a few out of many instances:—A single tigress caused the destruction of thirteen villages, when 256 square miles of country were thrown out of cultivation. In 1869, one tigress killed 127 people, and stopped a public road for many weeks. A man-eater, still in the Nallai Mallai forest, is said to have destroyed 100 people. In the Central Provinces,* the Chief Commissioner has reported 946 deaths from tigers during the three years 1866-69.

April and May are the best months for tiger-shooting, as then most of the grass gets burned in the jungles, and a hot sun contracts the supply of water to the neighbourhood of the great rivers. The sportsman should be up betimes, as in the morning the foot-prints of the previous night are more sharp and clear, and all the wild animals, from whose movements much is to be learned, are then on the move.

The shooting season.

There are three distinct modes of hunting the tiger practised by Europeans in India. In Southern India,

Three modes of hunting.

* Upwards of 500 people are killed every year in the Central Provinces by wild animals of different sorts.

the sportsman, attended by a crowd of beaters, with drums, old firelocks, and other instruments of noise, assails the tiger *on foot*, searching him out in the dense jungle where he makes his mid-day lair. In Rajputana and all along the Bombay side, this plan has been adopted usually; and it is of such sport that Lieutenant Rice speaks in his book, and of which Colonel Campbell and Major Shakespeare give such graphic descriptions. This is the only mode of hunting that is attended with serious danger. In the jungles of the Terai, and generally in Northern India, the tiger is attacked from elephants. The Collectors of districts, and other local magnates, make up large parties, borrow twenty or thirty elephants from the Commissariat and Canal Departments, and from native gentlemen, and with one or two trained *shikari* elephants* of their own, perhaps—worth from two to four hundred pounds—sally forth to some central point in the jungle, whence, for one or two weeks, they make daily excursions to likely spots. Ladies frequently accompany these parties, and, perched aloft on a good steady elephant, the danger is extremely little and the glory great. The third *modus operandi* is to erect a *machan*, or platform, amid the dense foliage of some great tree, either near water frequented by tigers, or at some spot where they can be driven. This is practised, to our knowledge, in the districts of Benares and Mirzapur, and probably elsewhere. Here the danger is reduced to a minimum, and ladies have frequently witnessed and partaken of the sport. Often, no doubt, those who nominally shoot on foot take advantage of a commanding tree or projecting rock; and we have known gallant South-India hunters to tie up a bullock as a bait, and watch for the great cat from a convenient and safe bough overhead; but a direct assault in the jungle, on foot, is more common, and, we think, more sportsmanlike. Let us hear, however, what Captain Forsyth has to say on this head:—

On foot.

On elephants.

From *machans*.

The danger question.

"Some people affect to despise the practice of using elephants in following tigers, and talk a good deal about shooting them on foot. As regards danger to the sportsman, nine-tenths of the tigers said to

* Some capital advice on the purchase, selection, and care of elephants is given as an appendix to Captain Forsyth's book—one of the most useful books on Indian sport that has ever been written.

be shot on foot are really killed from trees, or rocks, where the sportsman is quite secure. In this method of hunting, many more tigers are wounded than are finally secured, the only danger lying in following up a wounded animal, which is usually avoided; and thus an innocuous animal is often converted into a scourge of the country-side. A very few sportsmen do, for a short period of their lives, make a practice of hunting and shooting tigers really on foot; but they are seldom very successful, and sooner or later get killed, or have such narrow escapes as to cure them of such silly folly for the remainder of their days. A man on foot has no chance whatever in a thick jungle with a tiger that is bent on killing him. Even on the elephant all is not perfect safety, instances being not rare of elephants being completely pulled down by tigers; while accidents from the running away of elephants in tree-jungle are still more common."

Skinning and preserving.

No time should be lost, when a tiger has been secured, in removing his skin, else the hair will begin to drop out. Throwing him on his back, make a cut from one corner of the mouth down the medial throat and belly to the root of the tail. From this cut, four lateral incisions must diverge to the extremities of the limbs. The last metacarpal and metatarsal bones should be left in the skin. When the flesh is completely removed, the skin is usually pegged out, with the fur downwards, dried and anointed with arsenical soap, and sprinkled with powdered alum. Another mode is—instead of pegging it out, to powder the flesh side thick with alum, fold it, and immerse it in a barrel of brine. A number of skins may be placed in the same barrel.—(See Galton's *Art of Travel*, p. 180.)

The Wild Elephant.

Habitat.

The wild elephant is still somewhat common in most of the large forests of India. It is found in the Terai from Bhutan to Dehra and the Kyarda Dhoon. It abounds in Central India from Midnapar to Mandla, and south nearly to the Godaveri. From Travancore northward along the westward Ghâts, more especially on the Arnimalli Hills ("elephant hills"), the Coimbatore Hills, the Wynaad, Nilghiris, Curg, parts of Mysore and Canara, and the Shervaroys and Culmallies. The elephant must be shot in the brain, which lies within a very small compass very far back in the head. Your ball has many inches of bone to traverse; but, in the forepart and near the base of the trunk, the bone is soft and honeycombed, and above each eye it is thinner. The front is the best spot. Fire at the bump at the upper part of the trunk. If his trunk is in the air when he

Where to shoot.

approaches you, one shot will not kill him. Gordon-Cumming speaks of shooting elephants behind the shoulder. This, no doubt, may be done successfully; but is very uncertain, unless with guns of great calibre, or shell. Zinc bullets weighted with mercury, and steel-tipped conical bullets (see Galton's *Art of Travel*, p. 239), commend themselves for this sport.—(Emerson Tennant's *Ceylon*, and Baker's *Rifle and the Hound*, should be consulted.)

The Wild Buffalo, and Bison.

Buffalo habitat.

The wild buffalo is found in the Terai, the Bengal Sunderbans, along the Brahmaputra, and on the eastern portion of the table-land of Central India. His habitat lies to the north of that of the magnificent and kindred bison, or gaur. He is an extremely powerful animal, and a very hard dier. Heavy rifles with large hardened balls, or shell, are commonly used. Midway between the withers and the bottom of the girth, and behind the shoulder-blade, is the vital point. The ball will thus penetrate his lungs. He is easily approached.

Vital point.

Bison.

The bison, measured to the top of the shoulder, often exceeds six feet in height, and from nose to root of tail nearly ten feet. It is abundant all along the Western Ghâts, and, indeed, in all the great forests of Southern India. It is commonly said that there are no buffalo south of the Narbadda, and no bison to the north;* and the truth is thus roughly stated. Sometimes the bison is found in herds of from thirty to forty; but more often in herds of from ten to fifteen cows and a bull. Bulls, however—and these usually the largest and fiercest—are often found alone. Notwithstanding its prodigious strength, it is a timid and shy animal, requiring the most careful stalking. Driving is often resorted to, while the sportsman awaits his victim perched on a tree. Like those of the buffalo, the lungs are very large, and the fatal shot is that behind the shoulders.

Habitat.

The Lion.

The Lion.

The maneless Asiatic lion, although found in

* Forsyth disputes this.

Harriana, Gwalior, and Sagar, is now no longer abundant, except in Guzerat and Kutch. It is said to be a poor-spirited creature, in comparison with its African congener, and to afford somewhat indifferent sport. Donkeys form its favorite food, but it is also partial to beef. Lion-shooting can hardly be considered characteristic Indian sport.

The Ibex.

The Ibex.

The* ibex (*capra sibirica*) affords some of the noblest sport in the world, from the physical strength, moral fortitude, patience, and true sporting instincts called into play, in searching for, or following its tracks among the precipitous and elevated tracts it frequents. It is found in Kunawar, Kulu, Lahoul, Spiti, Cashmere, Baltistan, and various parts of Thibet. In its movements it is extremely agile, bold, and enduring; and this, coupled with the difficult nature of the ground where it is found, just under the snow-line, renders its pursuit highly arduous and dangerous.† The sexes generally live apart, often in herds of one hundred or more. Their young are usually born in June and July—twins, commonly. Vigne, in his work on Cashmere, states that one or two hundred ibex are annually killed in Balti in winter, when forced to descend into the valleys. In Ladakh they are snared at night, and shot in the grey dawn of the morning, when they venture down to the streams to drink. They are killed for the sake of the soft under-fleece, which is used as a lining for shawls, stockings, gloves, and is woven into a fine cloth called *Tusi*. No wool is so rich, soft, and full. The hair itself is manufactured into coarse blanketing for tents, and twisted into ropes.‡ The male stands about forty-four inches at the shoulder, and is strongly and compactly built. The prevailing color is dirty

Characteristics.

Dimensions.

* Wilson's *Summer Rambles in the Himalayas.* Kinloch's *Large Game of Thibet.* Vigne's *Cashmere.* Cunningham's *Ladakh.*

† Wood says in his *Natural History* that, should the hunter approach too near the ibex, the animal will, as if suddenly urged by the reckless courage of despair, dash boldly forward at its foe, and strike him from the precipitous rock over which he is forced to pass. But this requires confirmation.

‡ Jerdon's *Mammals. Large Game Shooting in Thibet and the North-West;* by A. A. A. Kinloch, Rifle Brigade, p. 32.

white, with a ridge of coarse, chocolate-coloured hair along the back; the lower parts, legs, and some irregular patches are of the same dark tint. He is furnished with a flowing black beard. The horns are usually large and graceful, curving back over the quarters, varying from 40 to 52 inches in length, and from 10 to 13 in circumference. The females are much smaller than the males, and are of a more uniform colour—a greyish brown, with dark legs: their horns are thin and slightly curved, and generally about a foot in length. The front of the horns is almost always frayed; and it is commonly believed, and confidently stated by some naturalists, that the ibex, when hotly pursued, hurls himself over the precipices, and alights safely on his stout horns. We extract the following from Mr. Kinloch's admirable work mentioned in the footnote on preceding page:— Description.

"The ibex inhabits the most precipitous ground in the highest parts of the ranges where it is found, keeping above the forest (where there is any), unless driven down by severe weather. In the day-time, it generally betakes itself to the most inaccessible crags, where it may sleep and rest in undisturbed security, merely coming down to the grassy feeding-grounds in the morning and evening. Occasionally, in very remote and secluded places, the ibex will stay all day on their feeding-grounds; but this is not common. In summer, as the snow melts, the old males retire to the highest and most unfrequented mountains, and it is then generally useless to hunt for them, as they have such a vast range, and can find food in places inaccessible to man. The females and young ones may be met all the year round, and often at no very great elevation."

How to get a shot.

Although they are very wary, a careful hunter can generally, if he be sufficiently bold and skilful a climber to attain a position well above the herd, get a shot at the ibex. Their vigilance is chiefly directed below. Where much disturbed, one or two of the herd usually keep a sharp look-out while the rest are feeding, and, on the slightest alarm, the sentries utter a loud whistle, which is a signal for a general rush to the nearest cliffs. Should, however, a sportsman have time to obtain a shot before being observed, he may follow it up with one or two others, sometimes, ere the herd is out of range; as, at first, they seem quite stupified by the noise, being unable to attribute it to any visible object. Mr. Kinloch states with enthusiasm that he considers ibex-shooting to be quite the finest sport in the Himalayas; and, except pig-sticking and elephant-shooting, unsurpassed by any in India.

The finest sport in the Himalayas.

The Markhor.

The Markhor.

Description.

Distribution.

Habits.

The* markhor (*capra megaceros*) even surpasses the ibex in selecting the most inaccessible and dangerous heights for his feeding-grounds. The broad, spiral horns of this magnificent wild-goat attain to a gigantic size. The general colour of the animal is in summer a light greyish brown, in winter a dirty yellowish white, with a bluish brown tinge. The adult male has a long black beard, and has his neck and breast also clad with long black hair reaching to the knees; he stands 11½ hands high. The females have a short black beard, but want the long mane.† The horns of a large old male sometimes reach a length of 52 inches, not uncommonly 4 feet, the tips being distant about 34 inches. The markhor is found on the Pir Panjal range of the Himalayas, to the south of Cashmere, in the Hazara hills, and the hills on the north of the Jhilam, and in the Wardwan hills separating the Jhilam from the Chenab river; not extending, it is said, farther east than the sources of the Bias. As we have already said, this goat inhabits the most precipitous and difficult ground, where nearly perpendicular faces of rock alternate with steep and slippery grassy slopes, and patches of forest strewed with fir spines, offering a most precarious footing. It is extremely shy and secluded in its habits, remaining concealed in the densest thickets during the day-time, and only coming out to feed in the mornings and evenings. No animal's pursuit leads the sportsman over such dangerous ground.‡ Early in the season, the males and females may be found together on the open grassy patches and clear slopes among the forest; but, during the summer, the females generally betake themselves to the highest rocky ridges high above, while the males seclude themselves in the most remote and inaccessible ravines. They are always remarkably wary, and require the most patient and careful stalking.

* The name is a Persian compound, signifying snake-eater. The natives believe that it devours serpents; and Mr. Kinloch, without giving us his reasons, says he believes there is some foundation for the story.

† Jerdon's *Mammals*.

‡ Kinloch's *Large Game of Thibet*, p. 38.

The Ovis Ammon.

This gigantic wild-sheep is properly a Thibetan animal, but specimens are stated to have been seen on the Indian side; and, as it affords to the Indian hunter magnificent sport, we must give it a place here. It is said to attain a height of 4 feet 4 inches sometimes; but 3½ feet is a more usual size. Jerdon mentions one that stood this height, and measured 6 feet 2 inches in length, and whose horns along the curve were 3 feet 4 inches, with a circumference at the base of 17 inches. Colonel Markham says that he has known the horns 24 inches in circumference; and that the skull and horns of one, when dried, weighed 40 lbs. Those of the female are not more than 18 inches in length, and have only a slight curve. The horns of the male are deeply wrinkled, massive, trigonal, and deeper than broad at the base. They run backwards and outwards with a bold circular sweep. The vesture is close and thick, consisting of more or less porrect piles, concealing a scanty fleece. The colour is a brownish-grey, the sides mixed hoary and slatey grey-brown. The throat, neck, and breast are white, with long hair, and the rest of the lower parts are dirty white.*

Ovis Ammon.

Description.

The *ovis ammon* is never seen in summer lower than 15,000 feet, and is often found much higher in the midst of the snows. It lives in flocks, the males and females generally apart. Dr. Jerdon says that *it is the shyest and wildest of all animals;* and all sportsmen concur in regarding it as one of the most difficult animals in the world to get a shot at. "To shoot," says Jerdon, "the *ovis ammon* is the greatest ambition of the sportsman in the Himalayas." Mr. Kinloch, who succeeded in getting some fine specimens of this sheep, has the following:—

Habitat.

"In winter, the *ovis ammon* inhabits the lower and more sheltered valleys where the snow does not lie in any great quantity: as summer advances, the males separate from the females, and betake themselves to higher and more secluded places. They appear to be particular in their choice of a locality, repairing year after year to the same places, where they may always be found, and entirely neglecting other hills, which apparently possess equal advantages as regards pasturage and water. No animal is more wary than the *ovis ammon*, and this, combined with the open nature of the ground which it usually inhabits, renders it perhaps the most difficult of all beasts to approach."

* Jerdon's *Mammals.*

Sometimes, however, it is found on ground where it can be stalked; but the hunter must shoot almost instantaneously, as no sooner does he raise his head than the herd disappears. There is, of course, no second shot to be had. Driving is out of the question. The neighbourhood of the Salt Lake, on the north-western side of the Pangong Lake at Chushul, and the neighbourhood of Hanlé, and the valley of the Satlej beyond the Niti Pass, are among the more accessible haunts of this rare and magnificent animal.

The Bharal.

Bharal noble sport.

Colonel Markham says that the bharal is the noblest animal of chase in the Himalayas. Although we cannot go so far as to say this, we must still, in view of the comparative rareness and wariness of this fine sheep, and of the exceedingly dangerous ground it frequents, consider its pursuit thoroughly good sport. Old males are found only on grassy slopes in the immediate vicinity of tremendous precipices, to which they fearlessly betake themselves on the slightest alarm; and he who would expect to get good heads must be able to climb cliffs such as would surprise the chamois-hunter of the Alps. The mountains separating India from Thibet, between the Satlej and Nepal, are its home. Favorite resorts are the valley of Leptel beyond the Millam Pass, the valley of Spiti between the Manerang and Parangla Passes, and the Baspa valley near the source of the Ganges. The males and females do not appear to separate always during summer, for sportsmen tell of mixed flocks being seen at all seasons; yet generally the old males form themselves into herds, and live apart. Kinloch says that, in his opinion, the flesh of the bharal surpasses the best mutton, and has the advantage of being generally tender soon after the animal is killed.

Habitat.

The Brown Bear.

The Brown or Snow Bear.

The brown bear is found more or less in the haunts of the ibex and markhor: near the line—in summer—of perpetual snow. In* autumn they descend,

* Jerdon's *Mammals.*

coming into the forests to feed on various fruit, seeds, acorns, and hips; and often coming close to villages to plunder apples, walnuts, apricots, buckwheat, &c. In spring and summer they feed on grass, roots, and various insects. They may be seen shuffling home from their feeding-place at day-break, turning over every flat stone they meet, and snuffling into every crevice of the rocks. In winter they hybernate in caves on the steep faces of the mountains, whence they issue forth in March and April. They litter in April or May. Characteristics.

If* care be taken to avoid giving it the wind, no animal is more easily stalked, as his sight is extremely defective. After hybernating, although very lean and wretched-looking, their coats are in fine condition: but late in the season they are not worth shooting, as their skins then are very poor. Shooting the Bear.

The Himalayan Black Bear.

Another very common animal in Cashmere is the Himalayan black bear. It is jet black, with the exception of a white lower lip, and a white, V shaped mark on its chest. The skin is not handsome. Himalayan Bear.

This bear does not hybernate completely, and may be met with at any season. It much frequents cultivated land, committing great depredations on the crops. When it can conveniently get it, flesh is greedily devoured, and no fastidiousness is shown as to how the animal devoured met its death. Occasionally,† an old male takes regularly to feeding on sheep, cattle, or ponies, and continues the practice till killed. The Himalayan bear is often very ferocious; and, in almost every hill village, some one is to be seen frightfully disfigured and mauled. The best way of shooting it is to beat the wooded ravines, in the vicinity of the fields or fruit-trees in which they are known to feed. By sending men out at daylight to mark them down as they return to the ravines, much time may be saved. Early in winter they may often be found on the oak trees greedily eating the acorns, and unconscious of all else; when they may be quietly potted as they sit. Characteristics. How to shoot them.

* Kinloch's *Large Game*, &c. † Kinloch.

The Bara-Singha.

* Bara-Singha (twelve-tined) or Cashmere Stag.

This magnificent animal is probably identical with the red deer of Scotland; its antlers, however, attain a greater size. It is most plentiful on the northern ranges of Cashmere, especially the Wardurm and Sind valleys. It inhabits the forest-clad mountains, at a height in summer of 9,000 or 10,000 feet; and is often rather difficult to find. The horns are usually shed in March; and, in April and May, both stags and hinds may be often seen on the open grassy slopes, not far below the snows. Soon after this, the stags all migrate to the highest ranges towards Thibet, where they remain until the beginning of September. In October they rut, and may be heard all day long bellowing in the forests. They are now so preoccupied and excited as to be easily stalked.

Travelling in the Hills.

Baggage.

As some of the best shooting in India is found in hills, it will not be amiss to give here some suggestions on Himalayan travelling, derived from our own experience, and the admirable chapter on this subject in Mr. Kinloch's book.

For a long trip, twelve baggage coolies,† at least, will be required. Their loads may be thus distributed—

Small tent (pál, weighing, with iron pegs, about 40 lbs. —price Rs. 35) for self, and one for servants	2
Bedding	2
Clothes and books	1
Cooking vessels	1
Tea, sugar, light cane-chair, and other stores	1
Camp-table and brandy	1
Ammunition	1
Gun and rifle	2
Extras	1
	12

These loads could be transferred to six mules or ponies, or four yaks.

Servants.

A handy Mahomedan servant, who can cook, wait at table, and look after one's clothes; and a bhistie,

* The horns have often twelve tines, a bow-antler, bez-antler, median tine, and a trifurcated tip. Fifteen, sixteen, and even eighteen points have been counted, but are rare; and the average is ten points. Forty inches is the average length of the horns.

† This is Mr. Kinloch's moderate estimate: we should be disposed to add four coolies and a "mate," or head-man.

who, in addition to his regular duties, can turn his hand to anything, are the only servants absolutely required. The *shikari* is a local official, and must be changed as one goes along.

Dress.

As to clothes—nothing can be better than the soft, warm, brownish and grey stuffs found in Cashmere, and nearly everywhere in the hills. Made-up suits of this cost a mere trifle. The hat should be a good protection from the sun, as its rays are dangerous, even at the greatest altitudes among the snows. A "Terai hat" by André* of Bond Street, if well ventilated, makes a capital head-dress for hunting or shooting in any part of India: the *solah* hat of the country, if used, should be covered with *khaki*; and more than one must be carried, as the part that comes in contact with the head soon wears out in rough work. In Thibet, a knitted woollen helmet with a mask, covering head and face, leaving only two holes for the eyes, is necessary to protect one from the awful glare and the piercing dry winds. An excellent shoe for mountain-climbing is manufactured in Cashmere, of rice-straw twisted into rope and plaited. It affords a firm hold on slippery rocks, and is unequalled for travelling over hard snow and ice. Better than any trunk or portmanteau is the ordinary (*khilta*) basket of the hills. It should, however, be covered with leather, and have a lid that can be locked; and such can be procured almost everywhere.

"Khiltas."

Guns.

In shooting big game, one, of course, requires as low a trajectory as possible; and this is one of the great advantages of the light ball and heavy charge of the Express rifle.† The ·450 of an inch Express has a charge of nearly 4 drachms; and the ·500, of 5

* Mr. André should manufacture a "Terai hat" of a *slightly* darker shade, for sportsmen.

Note.—If the sportsman wishes to get shooting clothes from home, he cannot do better than deal with Messrs. Macdougall and Co., of Sackville Street, London. Every sportsman in England knows this firm. Their material is especially excellent, for they are manufacturers as well as tailors.

† The Express system consists in the use of a short conical bullet, hollowed at the point like a shell, but without any bursting charge, and expelled from the barrel by a charge of powder very great in comparison with its weight. The bullet strikes with tremendous violence, and has its hollow point opened out by the shock into the form of a mushroom, or perhaps broken into fragments, which, taking different courses, inflict a terrible wound. Henry of Edinburgh has been particularly successful with this class of weapon.

Turner's (T. Turner, Fisher St., Birmingham) ·500 bore Express,

drachms. The former gives a perfectly point-blank range of 160 yards; and the latter a point-blank of rather more than 200, and an extreme effective range of 400. These two rifles for all ordinary purposes may be recommended. For dangerous game, the large rifle, firing the spherical ball, or the shell, should be employed. This, Captain Forsyth (who published a work on fire-arms) says, should be at least twelve gauge, and eleven pounds in weight. If the shooting is from an elephant, the spherical twelve-bore is sufficient. This, or the short conical ball, hardened with one-twelfth of mercury, or tin, with four and a half or five drachms of powder, forms an excellent charge for buffalo or bison shooting. It would be invidious to direct attention exclusively to any particular gun-maker; but there can be no harm in saying that Messrs. Greener (Messrs. Greener and Co. have published a useful work on guns and rifles), Powell, and Turner of Birmingham, Reilly and Stephen Grant of London, and Henry of Edinburgh turn out first-rate articles. We may add that, for double rifles, there is no breech system better than the 'double grip' now so generally adopted. In addition to a heavy rifle and gun, a small pea-rifle will be found useful for pot-shooting, when there is danger of disturbing big game.

Sporting requisites.

No sportsman should travel without a binocular, compass, flint and steel, portable sundial, arsenical soap, alum, a lantern, string, thread, needles, a big knife (nothing better than a good dirk, with horn hilt), small axe, green spectacles, sticking-plaister, caustic, quinine, and chlorodyne. Mr. Kinloch gives the following estimate of the expense of Himalayan travelling for one month:—

Expenses.

Twelve coolies at 4 annas a day	Rs. 90
Flour, rice, milk, &c.	„ 10
Fowls and mutton, when game is unprocurable	„ 10
Servants and extras	„ 40
Total Rs...	150

This, however, is considerably more than it costs, on an economical scale, to shoot big game in Ladakh, Cashmere, Spiti, and Lahoul.

weighing some 9½ lbs., and employing a charge of 5½ drachms to expel a bullet of 340 grains, is a very powerful weapon; yet this is surpassed for big game by his ·577 bore (treble grip), weighing 10½ lbs., and employing a charge of 6 drachms to expel a bullet of 480 grains.

English Name.	Scientific Name.	Hindustani Name.	Habitat.	Average Dimensions.	Character, &c.	Vital Spot and Mode of Shooting.	Trophy.
Tiger	Felis Tigris	Sher	All India, up to an elevation of 6,000 and 7,000 feet. Breeds in forests and mountain tracts, and comes out into the open country when corn is ripe.	From tip of nose to tip of tail, 9½ feet. Girth 5ft. 3in. behind shoulder. Height from heel to shoulder, 3ft. 2in.	Shy, cowardly; but bold and ferocious when attacked. When in open tract, will kill a cow or human being every five days	Behind shoulder; centre of chest; behind ear; in centre of forehead. Hunted on foot, from platforms, and from elephants.	Skin and claws. Whiskers much prized by natives.
Elephant.....	Elephas Indicus.	Hathi	Terai, Central India, Animalli Hills, Coimbatore, Wynaad, Nilghiris, Curg, Mysore, and Canara.	As nearly as possible twice circumference of fore-foot. See Tennent's *Ceylon*, II., p. 337.	Timorous till wounded. Frequents the profoundest jungles.	Root of trunk. Shell or hardened ball of large size.	Skull and ivory tusks. Tusks seldom exceed 50 or 60 lbs. weight.
Great Rhinoceros.	Rhinoceros Indicus.	Genda	Eastern Terai, Assam, and Bhutan Duars.	4½ to 5in. high; 9 to 10in. long.	Bold and formidable. Frequents swampy ground, and reedy banks of rivers.	Neighbourhood of eye. Shell or hardened and large ball.	Skull, with horn; occasionally 2 feet in length.

English Name.	Scientific Name.	Hindustani Name.	Habitat.	Average Dimensions.	Character, &c.	Vital Spot and Mode of Shooting.	Trophy.
Small Rhinoceros.	Rhinoceros Sondaicus.	.....	Bengal Sunderbans.	3½ to 3¾ft. in height; length 7 to 8ft.	Similar to that of the Great Rhinoceros.	The same as for the Great Rhinoceros.	Horn; about 1 foot long.
Wild Buffalo.	Bubalus Arni.	Jangli Bhaiñs.	Terai, Brahmaputra basin, Sunderbans, Central India.	At shoulder up to 6½ft. Length 10½ft.	Inhabits margins of primæval forests. Feeds at night, or early in morning. Not shy.	Behind the shoulder. Hardened ball, if not Express. Stalked.	Skull with horns. Head in Brit Mus with 12 ft. 2 in. round both horns above forehead.
Bison	Gavaeus Gaurus.	Gauri Gai..	Forests south of Narbadda.	Height at shoulder 6 ft. Length 9½ to 10ft.	Very shy, and generally timid. When alarmed, stamp loudly with their feet.	Heavy weapons wanted.	Circumference of horn at base, 1ft. 7½in. (Elliot.)
Brown Bear or Snow Bear. Perhaps identical with the Syrian Bear.	Ursus Isabellinus.	Barf ka Rich or Bhalu. Harpût in Cashmere.	Only found in Himalayas, and at great elevations in summer, close to snow.	7 ft. 6 in. long; 3 ft. high.	A stupid old creature, with poor eyes, but a good nose. The favorite big game of the Griffin in Cashmere. Hybernates completely.	Easily stalked, or followed up when feeding and moving slowly. Bags of seven in one day have been made, and as many as 28 seen.	The skin; which is in its best order after the hybernation, *i.e.*, in April and May. The hair is long and thickly set, varying from dark-brown to a yellowish white.

SHOW.

Himalayan Bear.	Ursus Tibetanus (though very rare in Thibet).	Bhalu	Himalayas, and hill-ranges of Assam. In summer, found at elevation of from 9,000 to 12,000 feet, and often close to the snows. In winter it descends to 5,000 feet, and sometimes lower.	Length about 5ft.; height 2 ft. 9in.	If it can easily, it escapes from man; but when escape is difficult, it attacks at once, and always proceeds to maul the face and scalp. It climbs trees in search of food, especially oak for acorns.	It can easily be shot in early morning, when returning to jungle from feeding-grounds it frequents.	The skin. In good order in spring. Hair coarse and scanty on lower parts; longest on the neck and shoulders.
Indian Black Bear.	Ursus Labiatus.	Bhalu	Throughout India, from extreme south to Ganges; very abundant in Northern Sircars and parts of Central India.	5½ ft. long; 3 ft. high.	Ascends to top of Nilghiris and other high mountains to feed in spring. Very fond of larvæ of a large longicorn beetle, and of white-ants. Occasionally robs birds' nests and eats the eggs: fond of honey and fruit of course; and eats flesh when nothing else is to be got.	Often very formidable. and maul sportsmen severely. They, like all the bears, carry great quantities of lead.	Skin; of which the hair is very long and shaggy.

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English Name.	Scientific Name.	Hindustani Name.	Habitat.	Average Dimensions.	Character, &c.	Vital Spot and Mode of Shooting.	Trophy.
Samber	Rusa Aristotelis.	Sambar ...	From the extreme south of India to Himalayas, ascending to 9,000 or 10,000 feet.	Length 6 to 7 feet; height 13 to 14 hands at shoulder.	Prefers hilly ground; rarely leaves forest. Usually gregarious. Travels wonderfully over rocky and stony ground. Horns not perfect till end of September.	Stalked and driven; pass in single file.	Antlers; generally under 3ft. in length.
Barasingha or Cashmiri Stag. Probably specifically identical with the Red Stag of Scotland.	Cervus Wallichii.	Barasingha	Inhabits pine-forests of Cashmere, at elevation in summer of 9,000 to 12,000 feet.	Length 7 to 7½ft.; height 12 to 13 hands.	Sheds horns early in October, when it may be heard all day bellowing in woods, and may be easily stalked.	Stalked	Antlers; average 40in. long.
Ibex.....	Capra Sibirica.	Sakin	Throughout Himalayas, from Cashmere to Nepal.	About 4ft. 8in. from tip of nose to root of tail; and 36 to 40in. high.	Frequents the most inaccessible heights. Timid and wary: agile and enduring. Sexes live in herds apart.	Stalked from above; most difficult of approach.	Horns; 4 feet long occasionally, and 11 inches circumference at base.

Markhor	Capra Megaceros.	Markhor ...	Pir Panjal range, Hazara and Wardwan hills, and northern Sulimani mountains.	11½ hands high.	Associates in small herds. Frequents steep heights above forest in summer. In winter descends to bare spots in wooded regions.	Stalked	Horns; of large old male sometimes 4 feet long.
Bharal, or blue wild Sheep.	Ovis Nahura.	Bharal; Na, or Napu in Thibet.	Himalayas, from Sikhim to valley of Satlej; and throughout Thibet. Fairly abundant on higher ranges of Kumaon and Garhwal. Favorite resorts are grassy slopes near steep precipices.	4½ to 5ft. long; 30 to 36 in. high.	Where much hunted, very wary, placing sentinels in commanding positions: but elsewhere easily approached. Associates in flocks of from 4 to 50 or 100. Early in spring best time for shooting, as then it often feeds all day. Lamb in June and July.	Stalked from above. They do not heed noises much; nor even the report of a gun if shooter is unobserved.	Horns; 2 feet and upwards round the curve, and 12 to 13 in. circumference at base. Horns have but one curve, but are quite unique and very graceful.
Urial	Ovis Cycloceros.	Urial	The salt range of Panjab, Sulimani range, and Hazara hills. Frequents rocky and stony places.	Male about 5 ft. long and 3ft. high.	During the day usually seclude themselves: but, where not hunted, feed during day, sometimes among sheep and cattle.	Stalked. Carry away an incredible amount of lead.	Horns; about 2½ feet round curve, 12 inches circumference at base.

English Name.	Scientific Name.	Hindustani Name.	Habitat.	Average Dimensions.	Character, &c.	Vital Spot and Mode of Shooting.	Trophy.
Ovis Ammon.	Ovis Ammon.	Nyan	Thibet	3½ft. high; said to be sometimes 4 feet 4 inches.	Never seen in summer lower than 15,000 feet. The shyest and wildest of all animals.	Stalked; requires snap shot.	Horns; along curve 3ft. 4in., circumference at base 17in.
Wild Boar ...	Sus Indicus	Jangli Suar	All India, to an elevation of 12,000 feet. Abounds in "Khadar" of Ganges and Jumna. In Upper India, much hunted at Cawnpore, Mirat, and Delhi. Near Jaipur and many other places in Rajputana, in the hilly countries of the Deckan and Nagpur, and over all Cutch, excellent sport is to be had.	A fine boar will measure 5 feet in length to root of tail, standing over 30 inches high. Measure with spears, one laid across withers, from top of shoulder to heel, and two placed perpendicular at either end.	Frequent jungles along river-banks: large gardens amid cultivated ground, and in sugarcane: associating in small herds, called "sounders." They are usually astir long before dawn. When disturbed repeatedly, they migrate in large numbers. They afford the finest sport in which man ever engages.	Speared, if with trailed spear, behind withers; if jobbed, high behind near shoulder. Spear should measure 8 to 10 feet, exclusive of head.	Tushes from 5 to 7 inches, two-thirds internal; belonging to him who first draws blood. The bacon is his who *kills* the pig. The soused head is an excellent dish.

Hunting with Cheetahs.

Characteristics of the Cheetah

This sport, called "pretty" by some, and "cruel" by most Europeans who have seen it, is so peculiar to the East, and so popular in India, that a short description of it deserves a place in these pages. The cheetah employed is the *felis jubata*—the hunting leopard of India. It is not maned (*jubata*), however, when domesticated, and it differs in some respects from the true leopard. The paw is long and narrow, like that of a dog, and the claws are not sufficiently retracted to prevent their points from being worn blunt; hence they cannot be used for the purpose of laying hold of the prey. The limbs are long and thin; the body slim and lithe, adapted for a high speed at short distances, but with no "staying" power. This lanky leopard is about thirty-two inches in height, yellow in colour, with black spots over the upper part of the body, and black lines from the corners of the mouth to the eyes. The nose is black. The general aspect of the tamed and petted cheetah is not one of fierceness or power: a certain lackadaisical expression characterises his mild, cat-like countenance, as he yawns away the hours while being driven on a cart to the vicinity of the deer he is employed to chase. He licks his keeper's hand, and looks, like Topsy's New England corrector, "as if he couldn't hurt a 'skeeter."

The Indian Antelope.

The Indian antelope which is generally his victim, is about thirty inches high at the shoulder, light-built, and of wonderful fleetness. A bound of ten or a dozen yards is nothing to it, and it clears obstacles ten or twelve feet high. In a fair race the cheetah would be left far behind; and this he appears to know instinctively, for he seldom wastes his energies in trying to follow up a deer that has escaped the first spring.

The Sport at Baroda.

The sport is indulged in by princes and chiefs all over India, but on the Bombay side it is enjoyed in its greatest perfection at Baroda. Invitations are issued by the Gaekwar, and at dawn the guests assemble at a spot about three miles from the city. The cheetahs are already there on light carts drawn by bullocks. They are fastened by a rope round the

neck, and a leathern hood, descending over the eyes, keeps them in darkness, and in ignorance of the vicinity of animals not to be sprung upon. The sportsmen get into bullock-carts knee-deep in hay, which serves in place of patent springs. No sportsman goes on horseback, for the object is to give a rural and unsuspicious appearance to the caravan. The bullock-carts set out across the country in single file, traversing cotton-fields, ditches, holes, plains, at the rate of about four miles an hour. The jolting, in spite of the hay, is frightful, and those are happy who reach the great antelope preserve—six or seven miles off—without having been shaken into little pieces. Suddenly the line of carts debouches on a vast plain, on which may be seen thousands of deer browsing peacefully in vast herds. They move along slowly, much like regiments in column, the older bucks leading, and the younger ones stationed on the flanks. They eat as they go, and take no notice of the country carts that edge slowly down towards them. When the carts get within a distance of eighty or a hundred yards, they stop. The deer take no thought of the circumstance; they eat and move, and move and eat, all the while presenting their long and exposed flank to the treacherous enemy. The hood is lifted from the cheetah's eyes, and his head is turned by the hand of his keeper in the direction of the column of deer. The rope is slipped from his neck, and he is free. The deliberation of his movements is remarkable. He quietly glides down from the cart, and walks very slowly towards the herd; if there be grass of any height on the way, he moves through it by preference; the deer do not see him, and he does nothing to make himself vulgarly conspicuous. When he gets within fifty yards, he quickens his pace to a trot; at thirty he canters; at twenty he has fixed his hungry eye on a particular deer, and, throwing aside all reserve, dashes boldly at it in a series of magnificent bounds. The herd sees him, and could still get off without the loss of a deer, if it only dashed off *away* from the foe. But, as we have said, it is moving in column, and nothing will induce it to break that formation. It goes straight forward, presenting its long flank to the cheetah coming against it at right-

How the Cheetah hunts.

angles. Consequently, if the first deer singled out escapes by a bound, another following it falls beneath his attack. He seizes it by the neck, and brings it to the ground. He tears open the blood-vessels of the throat, and lies motionless on the prostrate deer, drinking its blood in an ecstacy of gratified sensualism. The keeper runs up and slips the hood over the immoveable cheetah's eyes; another cuts the deer's throat, and, filling a wooden bowl with the blood, puts the now sulky cheetah's nose in the warm liquid, and he is half led, half dragged, back to his cart.

The next flank march is not quite so easily effected; the deer are more on the alert, and start off at a run when the carts approach. A rush is therefore sometimes made, to cut the column in two and scatter the deer. The cheetah is slipped as before, and he spies a buck, makes at him, and misses. He is quite chapfallen, and does not follow up the chase; he takes a canter at large, and forgets all about the deer. A man runs after him, lays hold of him by the tail in a most unceremonious manner, blindfolds him, and drags him back to the cart, quite out of sorts. Sometimes when he brings down a vigorous buck, the victim will break loose, and seek to escape by bounding a dozen feet into the air. But the cheetah heads him, springing at his throat. We have seen a buck and a cheetah thus springing—the one for life, and the other for prey—several times in succession, and for a moment it looked as if the buck would butt and beat the cheetah. But the cheetah's blood was up, and he succeeded in getting his victim once again under—never to rise more, for the merciless knife of the cheetah-wallah finished the struggle while it was still doubtful.

The Cheetah and the Buck.

The herds becoming scared and difficult of approach, it soon becomes necessary to out-general them. The hunting party breaks up, and one section gets to the farther side of a herd, and moves upon it. It flies, and of course the cheetahs of the other section make great havoc. The terrified deer return upon their steps in confusion, and good sport is afforded for quarter of an hour to the first section. By the time the herds become thoroughly panic-stricken, and dash off wildly over the plain at the merest glimpse of a

When the herds are scared.

bullock-wagon, the sun has got high overhead, and the cheetahs feel the want of a siesta. No more sport is possible that day; the venison is placed on carts or on camels and carried off, and the herds are once more at peace.

Kites overhead.

This sport is watched by more than the invited guests; kites and other fierce hunters of the air gather overhead, ready to swoop upon the carcase, even in the presence of the cheetah and his keepers.* We have seen a pair of impetuous falcons swoop at the body of a fawn the instant the cheetah had been removed from its bleeding neck. They dropped from the cloudless sky overhead, and seemed to ignore the presence of the men who were standing around in a circle, until they almost struck the deer with their cruel talons; then, seeing themselves surrounded and overlooked, they rose reluctantly, and sailed around the spot only a few yards above the ground, waiting for the offal.*

Fishing.†

If one only knows where to look for it, there is certainly as good fishing to be got in India as in any other country in the world. We once knew a brave old gentleman in Northern India—who, by the way, used to fish from an elephant—that pronounced India to be *the* great fishing country,—nor altogether without reason, we think. A writer in the *Field* of 9th October 1869 speaks of catching 700 lbs. in five days, with the rod, in the Panjab; and on one day he landed 358 lbs. The river was the Punah, an

Fishing in the Punah.

affluent of the Jhilam that rises in the Pir Panjal. This river, which is about 120 miles in length, is about the size of the Tweed at Coldstream; but the pools are deeper, and the current more rapid. The‡

* Sir John Malcolm describes a Persian sport in which a species of hawk, called a Cherkh, is employed to attack the antelope. The bird pounces repeatedly on the head of the deer, and with such force as sometimes to knock it over. Hawks are not flown at bucks, because they strike with such fury, and so little regard for consequences, that they would impale themselves upon the horns of their intended victims.

† Our chapter on sport has already so much transgressed its limits, that we must dispose of the section on fishing in a very summary manner. We would refer our readers to Thomas' *Rod in India*—a capital book.

‡ See Day's *Carps of India*.

mahsir, or Indian salmon, is the fish that affords the best sport in this, as in every other river of India. It is a grand carp that attains a weight of 70 lbs. and upwards; and affords more play to the angler, and as dainty a dish to the *gourmet*, as the Spey or Ness salmon. The writer in the *Field* gives us the following particulars of eleven consecutive days' sport :— *Mahsir.*

Respective Weights of Fish in pounds.	Total.	
March 2nd (1869), 35, 29, 17, 7, 3 (lost 3 fish)	91	lbs.
„ 3rd, 44, 40, 40, 36, 18, 18, 14 (lost 6 fish)	210	„
„ 4th, 38, 18, 14, 3 (lost 3 fish)	73	„
„ 5th, 52, 22, 19, 14, 4 (lost 2 fish)	111	„
„ 6th, 7, 7 (lost 2 fish)	14	„
„ 7th, 17, 16, 10, 8, 3, 2 (lost 3 fish)	56	„
„ 8th, 30, 18, 10, 8, 5½, 3, 3, 2, 2, 2, 1 (lost 3 fish)	84	„
„ 9th, 25, 24, 18, 16, 11, 10, 8, 8, 8, 7, 7, 5, 4, 3 (lost 2 fish)	154	„
„ 10th, 43, 28, 24, 23, 18, 11, 10, 9, 8, 8, 7, 7, 5, 4, 4, 3, 3, 2, 2, 2 (lost 4 fish)	221	„
„ 11th, 33, 13, 10, 7, 5, 5, 5, 4½, 4, 3½, 3½, 2½, 2 (lost 3 fish)	98	„
„ 12th, 30, 3	33	„
Grand Total...	1,145	lbs.

Indian fishing.

This gives us an average for the 87 fish caught of more than 13 lbs. 2½ oz. each.

The mahsir is often fished with fly; but there is no doubt but that a natural bait, a phantom or spoon with a heavily-weighted line (the mahsir being usually a bottom-feeder and great fish-eater), will always make a better bag. The phantoms used by the writer in the *Field* were at least 6 inches long, and the spoon the size of a dessert spoon. Both Bowness and Farlow, in the Stand, sell hooks specially adapted for mahsir fishing. This noble fish is found not only in Northern India, but in all the larger perennial rivers of the three presidencies. Mr. Thomas has caught it in Canara. The following extract is from the *Rod in India*:— *The hook.*

"Your best chance for mahsir is when the river is as clear as crystal—just the time you would consider most unfavorable for trout or salmon. Though I have taken mahsir freely when the river has been the least bit tinged by a thunderstorm, still I hold to the opinion that for a fisherman, who keeps carefully out of sight, clear water is best—that, in short, the mahsir takes best in clear water, and for the *When to fish.*

reason, I fancy, that he sees best then. Although he has a leathery mouth, without a vestige of a tooth, he is a great fish-eater. He kills and holds his fish by violent compression; he will crumple up a stout spoon bait like a piece of paper."

The time of year to fish in India is when the rivers are not discolored by the monsoon or snow floods; which, speaking roughly, is the cold weather. The time of day is from dawn to 9 A.M., and from 4 P.M. to sunset. Between 9 and 4, not only is it intolerably hot for the angler, but the fish will not take.

Marral. The marral is another Indian fish that affords good sport. He grows to a length of from two to three feet, and is not bad eating; resembles a pike in appearance and habits, and may be fished for in the same way and with the same tackle.

We must now proceed to greater sport.

PIG-STICKING.*

Pig-sticking. Pig-sticking, or boar-spearing, is, in our opinion, the grandest sport that India or any country affords. It calls into play the noblest qualities of a hunter—jungle-craft, patience, self-restraint, presence of mind, and courage. The pig-sticker must also be an expert horseman. He has to gallop at the highest speed over stony and broken ground intersected by ravines, and covered with dense brushwood and grass that conceals every danger. His horse, greatly excited—a hot Arab, or powerful waler—must be kept under perfect control by the pressure of the legs, and the influence of the bridle-hand; the other being occupied with a spear. The charge of the wild boar, moreover, frantic with rage and fear, has often to be received on a horse either plunging, or trying to bolt; and it must be remembered that the pig rushes at his foe, and, with a twist of his snout, inflicts his terrible wound like a flash of lightning. The hunter loses his seat at the peril of his life, while he misses to catch the boar on his spear at the price of his horse, or his own leg.

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* "Youth's daring spirit, manhood's fire,
Firm hand and eagle eye,
Do they require who dare aspire
To see the wild boar die."

"The boar the boar, the mighty boar."

The* Indian wild hog stands a little over 30 inches high at the shoulder, and from the tip of its snout to the root of its tail it measures some 5 feet. The boar's mouth is adorned with tushes from 5 to 7† inches in length—nearly two-thirds being buried in the jaw. Everywhere in India, from the level of the sea to an elevation of 12,000 feet, it is found. It usually associates in herds, known to the sportsman as *sounders*. When sheltering in long grass, it cuts some sheaves, spreads them carefully out, and creeps underneath, thus thatching itself against the heat of day. It feeds at night, and it is early in the morning, when returning to its mid-day lair, that the hunter most easily finds it. Once settled down for the day, it lies very close, sometimes waiting till the horses threaten to trample on it. It is nearly always found close to water, in the jungles skirting great rivers, and high grass round pools of water or abandoned tanks. Sugarcane is also a favorite haunt. Here it does incredible damage, and the cultivators are always delighted to see the pig-stickers when this crop is up. Major Shakespeare, in his *Wild Sports of India*, writes as follows:—

The swiftness, courage, and ferocity of the boar.

"No one but he who has seen it would believe that the wild hog of India can on his own ground outpace, at his first burst, and run away from the fastest Arab race-horse; but such is the fact. Let the hog be mountain born and bred, having to travel, in certain seasons of the year, forty or fifty miles every night for his food, then try him on his own hillside, or over the rock and bush of the Deckan, and I will back the hog against the hunter." * * * * * "No man who has not been an eye-witness of the desperate courage of the wild hog would believe in his utter recklessness of life, or in the fierceness that will make him run up the hunter's spear, which has passed through his vitals until he buries his tusk in the body of the horse, or, it may be, in the leg of the rider. The native *shikari* affirms that the wild

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* "On his bow-back he hath a battle set
Of bristly pikes, that ever threat his foes;
His eyes like glow-worms shine when he doth fret;
His snout digs sepulchres, where'er he goes;
Being moved, he strikes whate'er is in his way,
And whom he strikes, his cruel tushes slay."

"His brawny sides with hairy bristles armed,
Are better proof than thy spear's point can enter;
His short, thick neck cannot be easily harmed;
Being ireful, on the lion he will venture;
The thorny brambles and embracing bushes,
As fearful of him part, through whom he rushes."—
Venus and Adonis.

† Captain Newall tells us of tushes 9 inches in length, each forming a perfect semi-circle.

boar will quench his thirst at the river between two tigers, and I believe this to be strictly the truth. The tiger and the boar have been heard fighting in the jungle at night, and both have been found dead alongside of one another in the morning."

Captain Newall, the author of the *Eastern Hunters*, has a volume of 465 pages (large 8vo.) on *Hog Hunting in the East*; but it is chiefly narrative, and hardly gives that amount of precise information which one would expect to derive from so wide an experience as the author possessed. Mr. Kinloch says of the pig:—

"No animal exceeds the pig in ferocity,* or equals him in courage and determination. Once roused, nothing will stop him; he will boldly charge the largest elephant who may have disturbed him, without further provocation; and in no other species of hunting is the animal pursued treated with such fairness. With two or three horsemen after him, an old boar can, and often does, make a good fight of it, and the wounds are not always all his. In pig-sticking many sports are combined—racing, steeple-chasing, hunting, and fighting."

Again, speaking of the hunting-ground on the banks of the Ganges, Mr. Kinloch says—

The *Khadar*.

"It consists of level plains covered with grass, and intersected with deep ravines—some dry, others full of water, with deep but invisible ditches, holes varying in size from pits large enough to swallow up horse and rider, to others just big enough to admit a horse's leg, hidden stumps and tangled bushes—and over this one has to gallop at racing pace."

Colonel Campbell writes—

The pace.

"Hog-hunting is, in my opinion, the most exciting sport in India. As for the pace, there is but one—the very best your horse can muster, be the ground what it may. A lanky, outlying boar can beat a good horse in a spurt of half a mile over the best ground. What, then, must such an animal do over a country covered with loose stones, and cut up by ravines? A hog usually selects the very worst ground he can find. Going slowly at a boar is very dangerous; for not only may a miss occasion an accident, but even if you spear him through, he can run up the shaft, and rip the horse's entrails out before he has time to turn."

The best pigs.

Pigs fed upon sugarcane soon become too fat to run far; but the boars charge famously; the best for wind and endurance are those fed on the hills. They are kept in training by the great distances they have to travel for their food.

Hunting.

Having said so much about the boar, we must now proceed to give some account of the manner in which he is hunted. In the south of India and Bombay,

* Mr. Kinloch ought to know, for on one occasion, when hunting with the Mirat Tent Club, his horse was ripped, and he himself thrown, and wounded by a boar in more than *fifty* places!

long spears are used lance-wise; whereas, on the Bengal side, shorter and heavier spears are jobbed. The shaft of the spear is a male bamboo. Those with the *closest joints* are the strongest. The best spear-heads are manufactured at Salem in the Madras Presidency; shank included, they measure about six or eight inches in length. In selecting them, care must be taken that they have not a shoulder, which will render their withdrawal difficult; and they should be so attached to the shaft as to leave no projecting edge. The Bombay and Deckan spear-shaft is often ten feet and upwards in length; while that of Bengal does not exceed eight feet. They are both, usually, shod with lead, to correct the balance, and give them weight. Spears.

The object of the hunter's ambition is not to slay the boar, but to draw first blood. He who achieves this, is said to have taken "first spear," and receives the tushes as the trophy. It is necessary, of course, to kill the pig; but that is a subsequent consideration. First spear.

If riding Bombay fashion, as you approach the object of your pursuit, lean slightly forward in your saddle, hold your spear firm, and direct it behind the shoulder; do not push, but ride it in. Then, instantaneously withdrawing it, wheel off your horse, and prepare to receive a charge; or, if well backed up, let the others go in at the pig, until you are ready to return to the action. If you are charged, receive the enemy just where his thick neck buries itself in the shoulder, taking care to get *inside* the shoulder-blade. Spearing.

When pursuing with the short Bengal spear, wait till the boar's shoulder is parallel with your stirrup, then drop in high, behind his withers.

A small, light Arab, of from 14 to 14-3, is the best horse you can ride. He is plucky, handy, and, when galloping, sure-footed on the worst ground; moreover, he can scramble, climb banks, and take high drops, and is high-hearted, entering into the sport with great spirit. Such a horse costs in India from £80 to £200, according to his breeding and age. A thorough-bred waler (S. Australian horse) is the next best horse. He costs from £40 to £100. His faults, however, are that he requires more room and time to wheel and dodge about, and that he does not stand the heat so well—an important consideration Horses.

when it is remembered that the hot weeks immediately before the rains are the height of the pig-sticking season. The best class of light country-breds are extremely active and handy; but want bottom, and are soft-hearted. The Cabuli is a pig-headed, three-cornered, awkward brute usually; but sometimes, especially if he have a dash of Arab blood, he will do for pig-sticking.

Hunting song.

We must dismiss the boar with two stanzas of a hunting song:—

"Ah! what in all the world beside,
Through manhood's whole career,
Can match the mingled joy and pride,
The glories of first-spear?
Love's soft confession may be sweet,
The shock of battle thrill;
But give to me the hunting meet,
The find, the run, the kill.

"And when in after days we boast
Of many wild boars slain,
We'll not forget our runs to toast,
Or run them o'er again.
And when our memory's mirror true
Reflects the scenes of yore,
We'll think on friends it brings to view,
Who loved to hunt the boar."

CHAPTER VII.

PLACES OF INTEREST.*

1.—BOMBAY.

Etymology of "Bombay."

THE best authorities are agreed that the notion that the word 'Bombay' is derived from the Portuguese Buon Bahia, 'good haven,' is erroneous. The name dates from a time anterior to the arrival of the Portuguese in India. By the natives the name is written Mambé, and very often Bambé,† which, by well-known philological laws, easily became Bombaim, as it is found in Pepys's Diary and other old English books, after which it was written Bombay. The Mahrathi name of Bombay is Mumbai, a word derived from Mahímá, 'great mother,' a title of Devi, still traceable in the name Mahim, a town on the north side of the island of Bombay. There can be little doubt that the island was called after the goddess just named, and this view is strengthened by the fact that, about a century ago, there was a temple dedicated to Mamba Devi on what is now called the Esplanade. The temple was re-erected near the Bhendi Bazar on the right (entering from the Fort), and opposite to the temple of Bhuleshwar, a title of Shiva, meaning 'lord of the simple.'

Mahímá, "the great mother."

Early history.

Very little is known of the island of Bombay prior to its invasion by the Portuguese. It is stated that in 1318, after the Hindu prince of the Deckan (or 'the south,' as the word means), whose name was Ramdeen Giathu,‡ had been defeated by Alla-uddin near Deogar (the Moslem Daulatabad), the Mahomedan power, under the emperor Mubarak I.,

* Our limited space will not permit our even mentioning in this edition the names of many of the most interesting cities in India. We have accordingly confined ourselves to what is conjectured to be the route of the Prince of Wales during his approaching visit: but should the favor of the public encourage us to produce a second edition, we may try to treat the subject more exhaustively.

† Brigg's *Ferishta*, vol. iv., chap. iv.

‡ MS. of the Kathaui Purvoes (*vide Transactions of the Bombay Geographical Society*).

was extended to the coast, and, indeed, as far as the cluster of islands of which Bombay is the principal.

Inhabitants.

At this time the islands were inhabited by five races, which, to some extent, are still distinct :—1st, Kolis, or fishermen ; 2nd, Bhandaris, or toddy-drawers ; 3rd, Pulsheas and Josheas, *i.e.*, Hindu doctors ; 4th, Pathani or Pathan Purvoes, *i.e.*, writers, clerks, or scribes, as they remain to this day ; and 5th, the Panchalseas or Wadvals, *i.e.*, carpenters and keepers of gardens. The Kolis were the aboriginal inhabitants of Bombay, and seem to have been the only occupants until the island was taken possession of, at a very early date, by Bimb Rajah, a Hindu prince, who planted it with trees, chiefly cocoanut palms. The other races just mentioned are descended from the conquerors who accompanied Bimb. The immediate successors of this rajah were dispossessed by invaders from Choul, of the Chelya or military Banyan caste ; and these, again, were succeeded, as above stated, by Mahomedan rulers.

Early obscurity.

Bombay appears to have been a place of no note* whatever until a comparatively recent date. From the period just mentioned until the invasion by the Portuguese, no mention of the place has been found. Odoricus, an Italian friar, was at Tannah (where four of his Christian brethren suffered martyrdom) early in the fourteenth century, and, although in 1330 he published an account of his travels, he says nothing of Bombay. Thomas Stevens, of New College, Oxford, the first Englishman who visited the Western Coast of India, landed in Goa in 1579, and in 1608 was rector of a college in Salsette. He, too, wrote an account of his travels, but he is equally reticent about the neighbouring island of Bombay. There were several other travellers, too, who seem to have been as near to Bombay as those above mentioned, and who yet have not recorded any thing whatever of the place. In 1612, Captain Hawkins was in the Gulf of Cambay ; in the same year Sir Henry Middleton was at Surat ; and Sir Thomas Roe was there in 1615 : but none of these, nor any others, speak of Bombay.

* Anderson's *English in Western India*.

Dutch and English.

In the seventeenth century, the Dutch and the English were for a brief period allied for the purpose of extending the trade with India. Factories were established at Surat, and, in 1627, a joint expedition of Dutch and English ships was despatched from that place, with a view of forming a settlement at Bombay. With whom the idea originated, and what were the circumstances under which the expedition was planned, are not known; but the commander, Van Spenlt, died, and, as the scheme died with him, it had been probably originated by him: and, in 1632, the Portuguese quietly took possession of the islands of Bombay, Salsette, and others. Of the history of their dominion in those places little is known. Few buildings—and those insignificant—and no forts of any considerable importance, are left to testify to their occupation. Indeed, the island was then little better than a sickly salt-marsh, and must have been the abode of a poverty-stricken and semi-barbarous population; and were it not that the island is still dotted over with numerous Calvary crosses, there are few traces that the Christian had ever placed his foot on the soil up to the time the island passed into the hands of the English.

Portuguese occupation.

In 1653, the President and Council of the English East India Company at Surat drew the attention of the Directors to the desirability of obtaining the island, as a more secure and convenient position for a factory than Surat; and, in the following year, the Directors suggested to Oliver Cromwell that perhaps the Portuguese might be induced to sell Bombay.* Representations were made at Lisbon, and negotiations were opened; but nothing was determined upon. In 1658 Cromwell died, and his successor had more important affairs to look after than either the East India Company or the island of Bombay. In 1660 came the restoration of Charles II., and Portugal at once sought for a renewal of the alliance which the Protector had made with that country; and, in order to bind the friendship closer, an offer was made to the king of the hand of the Portuguese Infanta, Catherine of Braganza, with a dowry of £500,000,

Negotiations with the Portuguese.

* Bruce's Annals, 1626-27 and 1652-53.

Ceded to Britain.

the fortress of Tangiers in Africa, and the much-coveted island of Bombay. This was accepted, and the marriage took place in a private room at Portsmouth. On the 18th September 1661, the Earl of Marlborough* and a Portuguese viceroy with five ships arrived in Bombay harbour to see the cession carried out. This, however, was evaded by the Portuguese governor. It seems that the English admiral imagined that the treaty embraced Karanja, Salsette, and the adjoining islands, the immediate cession of which he demanded; but the Portuguese viceroy maintained that the treaty only provided for the cession of the island of Bombay, and that the Portuguese residents of the island should trade with Bandora, and other ports in Salsette, free of duty. Some time was wasted in negotiation, and Marlborough returned home without carrying out his instructions. He, however, left behind four hundred men under the command of Sir Abraham Shipman, who encamped on the island of Anjideva, about thirty miles south of Goa. Shipman and most of his men fell victims to the climate; and the senior officer, Cook, then took the command. This officer, glad to leave such an unhealthy spot on any terms, renounced all claim to the neighbouring islands, upon which the Portuguese ceded Bombay, on condition that they

Possession acquired.

should be exempt from all customs dues, that all deserters from Portuguese territory should be sent back, and that there should be no interference with the rites of the Roman Catholic religion, but that, on the contrary, if any Portuguese should offer to embrace the Protestant faith, the English should not receive him.† The English Government were displeased with these terms, and disallowed the convention. Cook was deposed, and a staunch royalist, Sir Gervase Lucas, was sent to take forcible possession of the island. He found that Cook had

* James Ley, third Earl of Marlborough, an eminent mathematician and navigator. He was afterwards Lord Admiral. He commanded the *Old James* in a sea-fight with the Dutch in 1665, when he was killed. His body was taken home and buried in Westminster Abbey. His honors reverted to his uncle, the fourth Earl, with whom the peerage became extinct.

† Ancient Record at Goa in the *Transactions of the Bombay Geographical Society*, vol. iii.

extorted large sums of money from the inhabitants, which he had appropriated to his own uses. Lucas landed at Bombay on the 5th November 1666, but died the following May, and Captain Cary was appointed deputy governor.

Value of the island.

Sir Gervase Lucas had pointed out to the Government that, if properly cultivated and governed, the island might become very valuable; but his representations were disregarded. The value of the island was then estimated at Rs. 51,542. The Government considered their new accession as worthless, and got rid of the place by bestowing it, in 1668, upon the East India Company, "in free and common soccage, as of the manor of East Greenwich, on payment of an annual rent of £10 in gold." The Company, however, do not seem to have prized the island very much—and, indeed, its condition must have been wretched; for, nearly forty years after its transfer to England, a quaint writer says of it—"A sheep or two from Surat is an acceptable present to the best man upon the island. And the unwholesomeness of the water bears a just proportion to the scarcity and meanness of the diet, and both of them, together with a bad air, make a sudden end of many a poor sailor and soldier. Two monsoons are the age of a man." So little were the advantages of the harbour appreciated, or the future greatness of the island anticipated, that, in 1669, it was seriously proposed to exchange it for Jinjira*—a place a little to the south, insignificant then, and still more insignificant now.

Bestowal on the E. I. Company.

Threatened by the Mahrattas.

In 1672, however, the island was thought worth defending. Sivaji threatened it, and the English were so alarmed that they strengthened their fortifications. His intentions, however, were not distinctly hostile. Indeed, he was rather indifferent to the port, and all he did was to build a fort on the island of Heneri to stop its trade. Bombay, therefore, suffered no injury from his approach, but can hardly be said to have felt secure until the Mahratta power was shattered to pieces.

* The present chief of Jinjira is a representative of the Seedee chiefs who possessed the principality during the existence of the Moghal empire.—Grant Duff's *History of the Mahrattas* (2nd edition, *Times of India* Office, chap. xxxvi., p. 508.)

Threatened by the Dutch.

In 1673, a Dutch fleet with six thousand troops on board threatened to capture the island; but, on the governor drawing out his forces, which consisted of three hundred English, "four hundred topazes" (Portuguese militia), and three hundred natives armed with clubs, &c., the enemy, thinking discretion the better part of valour, withdrew. General Aungier, the then Governor, distinguished himself in Bombay annals by the gift of a large chalice and cover to St. Thomas's Church, which are still preserved.

With the exception that, in 1681, a Mr. Smith was sent out from England, on a salary of £60* per annum, to establish a mint, nothing of importance appears to have occurred in Bombay until 1683, when the garrison revolted. It seems that false rumours were spread by rival companies that the great East India Company at home had quarrelled with the Government, and that force had been resorted to. Unfortunately, at this time the expenses of the fort were being reduced, and there was much discontent in consequence. The garrison seized the pretext of the supposed rupture at home, and, with Captain Keigwin, their commander, at their head, declared that they held the island for the king, and not for the Company. When Charles II. heard of this, he at once issued an order that Keigwin should give up the island; and Sir Thomas Grantham, the commander of the Company's fleet, proceeded to the island to carry the order into effect. Keigwin surrendered, however, on condition of a pardon to himself and adherents; but so slow were communications in those days, that he had held the place eleven months. For the more effectual coercion of any turbulent propensities, the expedient was adopted of removing the seat of government from Surat to Bombay.

Keigwin's Revolt.

Keigwin surrenders.

Bombay becomes a Regency.

The humble pretensions of a President and Council, however, were deemed incompatible with the rising grandeur of the Company, and, in 1687, Bombay was elevated to the dignity of a regency, with unlimited power over the rest of the Company's settlements. In 1670, two courts of judicature had been established; and, in 1683, the king authorised the Company to exercise the powers of admiralty jurisdiction

* Mill's *History of British India*.

throughout their possessions. A short time before this, small-sized forts—the same, doubtless, as those still remaining—were built at Mazagon, Sewree, Sion, Mahim, and Worlee, and there were works of some extent on the site of what were recently the fortifications. The walls were built in the year 1768 and succeeding years. The fortifications extended from Apollo Bunder to Fort George, and went almost completely across the island. The wall has gradually disappeared as its uses have become less and less, and now there is little of it left, except at Fort George and a portion near the present European General Hospital.

Building of forts.

In 1689, the emperor Aurangzib, in retaliation for the piracies of individual English traders, seized several of the Company's factories, and ordered the Seedee to drive out the English from Bombay. Yakoot Khan accordingly made a descent upon the island, and possessed himself of Sion, Mazagon, and Mahim —all places in the neighbourhood of the town ; but he could make no impression on the town itself. The attack, however, continued, until, after twelve months, the English appeased Aurangzib by the usual expedients of bribes and the humblest submission.

The Island invaded.

In 1698, a new East India Company was established ; and, in 1700, Sir Nicholas Waite, its President, landed in Bombay. Then ensued a series of misunderstandings between the heads of the two Companies, and intrigues by them with the native chiefs : and both the misunderstandings and intrigues were increased when an ambassador was sent from England to the emperor's court, where he must have occupied a difficult and anomalous position. The squabbles and intrigues resulted in Sir N. Waite winning over the governor at Surat, who thereupon seized Sir John Gayer, the President of the old Company, and kept him, with one hundred and nine others, a close prisoner in the Surat factory for three years. In 1702, a nominal union of the two Companies was effected, but the real amalgamation did not take place until 1708, when they became one, under the title "United Company of Merchants of England trading to the East Indies."

A new E. I. Company.

Imprisonment of Sir John Gayer

Amalgamation of the Companies.

Becomes a Presidency.

From this time Bombay became a distinct presidency, with a Governor and Council; and its rise, both in commercial and political importance, was rapid. The trade was not limited, as hitherto, to the Company's own ships, but other vessels were chartered. In 1750, the Bombay presidency was strong enough to combine with the Mahratta power to destroy the power of Tulaji Angria, a celebrated pirate, who was in possession of several strong forts, which in 1755 were attacked, and four of them captured by Commodore James. The following year, Clive (then lieutenant-colonel) arrived in Bombay from England, and assisted in the capture of other forts, and of Angria himself, whom they handed over to their allies, the Mahrattas, by whom he was imprisoned. The presidency then set about the task of breaking up the power with which they had so recently been allied. In 1756, the Peishwa was induced to cede to the Bombay presidency the sovereignty of the Bankot river and ten villages. Three years afterwards, the Company's troops took possession of Surat, and gradually extended their conquests, until, in 1773, they captured Broach. The next year they seized Tannah and Salsette, their hold on which, with Bassein and other places, was afterwards ratified by a treaty with Ragoba, the Peishwa; the result of which was to increase the revenues of the presidency by twenty-two and a half lakhs. Communications with England were then so slow that, two years after the above events had taken place, orders came that nothing of the kind should be done. The result was a series of undignified squabbles between the Bombay presidency and the Supreme Council at Calcutta, and the Directors at home. The Governor-General denounced the conquests by Bombay as "unseasonable, impolitic, unjust, and unauthorised," ordered them to cancel the treaty, and forbad the Bombay Council to receive Ragoba within the limits of their government. This was protested against, and even disregarded, by the Council of Bombay; but, in the end, they were successful in their negotiations.

The pirate Angria.

Capture of Surat, Broach, &c.

War with the Mahrattas.

About this time the English were alarmed at the party then in power at Poona, because the latter received an emissary from the French, and suspicious negotiations

seemed to be going on. It was feared that the treaty regarding the Mahratta powers, entered into some years before with Colonel Upton, would be disregarded, while the well-known desire of the English to instal Ragoba in the office of Peishwa, filled the Poona Government with distrust. An army was despatched to Poona. The portion from Bombay consisted of a force of 4,500 men, under the command of a "Committee." The Bombay army set out early in December 1778; on the 23rd they had ascended the ghâts as far as Khandalla, where they first saw the enemy. On the 4th of the following month they began their march to Poona; but as Ragoba's friends did not join them as was expected, they hesitated and delayed, not arriving within sixteen miles of that city until the 9th January, when they found themselves confronted by an army so large as to render an advance hazardous. They, therefore, withdrew from their camp on the night of the 11th; but their retreat was cut off.* The Mahrattas were then able to dictate their own terms, and the English were obliged to give up their previous conquests, while Ragoba surrendered himself to Scindia. Broach was given to Scindia; and the army returned to Bombay, sorely dispirited.

Engagement at Talegaum.

The Mahrattas successful.

It is beyond the scope of this work to detail the gradual extension of territory which is now included in the Bombay presidency. The English recovered all they had lost; and in 1820, when Mr. Mountstuart Elphinstone became Governor, the dimensions of the presidency had just been tripled, the whole dominions of the Peishwa having in one swoop been placed under our authority; and shortly afterwards, minor states rapidly came in. Elphinstone was a popular ruler, mixing freely with all around him, having "open breakfasts" at Parell once a week, and otherwise showing his desire to gain the affections of the people. It was by his influence that the prejudices against educating the natives were removed, and, in 1823, Government assisted in establishing the present native general library. A few years later, Government hinted that the establishment of a medical school was desirable; and the hint was not disregarded. For

The Presidency aggrandised.

Elphinstone's popularity.

Native education.

A medical school established.

* Grant Duff's *History of the Mahrattas*, chap. xxviii., p. 415 (*Times of India* one-volume edition).

Retirement of Mr. Elphinstone.

an account of the Elphinstone College we refer the reader to another page. Mr. Elphinstone left the Governorship of Bombay in 1827, and was succeeded by Sir John Malcolm, who ruled until 1830, to a great degree extending the works initiated by his predecessor. To the energy of Sir John Malcolm is due the establishment of the sanitarium at Mahableshwar. He did a great deal for the cause of Indian literature and science. The library of 100,000 volumes of the Bombay Branch of the Royal Asiatic Society was got together by him; and he was instrumental in establishing a botanical garden at Dapuri, for the production of silk and the cultivation of European vegetables. Lord Clare was Governor from 1831 to 1835. He was the last Governor under the old charter, and the first who came out overland.

The Mahableshwar Sanitarium

Sir John Malcolm.

Lord Clare.

Although Bombay escaped the horrors of the Mutiny of 1857, yet it was by no means free from intrigues, chiefly by the Mahomedans; but they were vigorously suppressed. In 1858 an Act was passed transferring the government of India from the Company to the Crown, still retaining, however, the form of rule by a President who is appointed by the Crown, and a Council who are appointed by the President. The Viceroy and his Council at Calcutta are supreme over the other Presidents and Councils.

Transfer of the government to the Crown.

Divisions.

The Bombay presidency at present consists of three divisions of British territory, *viz.*—the Northern Division, which contains seven collectorates; the Southern Division, which contains nine; and the Sind Division, which contains five. The total area of these divisions is 124,461 square miles, and the population 16,228,774. The presidency also contains several native states, which occupy 63,252 square miles, or one-third the entire area of the presidency, and have a population of 9,250,000 souls. They are divided into two main groups—the Guzerathi states, to the north; and the Mahrathi, to the south. The principal northern state is Baroda, with a population of 2,600,000 souls. The area of Bombay city is 18 square miles, and its population 644,405—a decrease of 31,477, or 21 per cent., on the census of 1864. Of the population of Bombay

Native States.

Baroda.

city, 7,253 are Europeans, and 25,119 native Christians.

In 1862-63, there was a great demand for Indian cotton, in consequence of the cessation of supplies from America on account of the war. Surat cotton, of which the value in England had been from threepence to fourpence a pound, rose to nearly two shillings, while all others had increased in proportion. The value of the exports rose in Bombay from £43,000,000 to £63,000,000 in a single year. In consequence of this, there was a great influx of money into Bombay, followed by a great deal of speculation. Joint stock companies sprang up in all directions. Large fortunes were rapidly made and as rapidly lost; and the "share mania" raised many to affluence, but sank many more in ruin. It was not until after some years that commercial confidence was restored. Share mania, 1862-63

The Right Hon'ble Lord Elphinstone was Governor of Bombay from 1853 to 1860, when he was succeeded by Sir George Russell Clark. Sir Bartle Frere followed in 1862, and remained five years, when Sir Seymour Fitzgerald was appointed Governor, holding office until 1872, the year in which the present Governor, Sir Philip Wodehouse, took office. The most important event in connection with Bombay in recent times is the Bombay Municipal Act of 1872. This gave for the first time the right of voting to the people of Bombay. It gave to Bombay a Corporation of sixty-four persons, sixteen of whom are nominated by Government, sixteen elected by the Justices of the Peace, and thirty-two by house-holders who have paid their rates. From the Corporation a Town Council is selected, consisting of twelve members, eight of whom are elected by the Corporation, and four chosen by Government. The Corporation and Town Council are all elected for two years. At the first election in 1873, out of 3,927 rate-payers entitled to votes, only 700 recorded them; but the elections this year showed an improvement, as, out of 3,470 entitled to vote, 1,211 recorded them. There are some strange anomalies in the arrangements: thus, in one ward which contains 24,352 inhabitants, there are only 13 voters. Municipal Corporation

The Fort.

The Fort.

That portion of Bombay now called the "Fort," is the city proper, which used to be surrounded by fortifications. It forms, by far the greater portion of the European portion of the town. The fortifications at present extant are those of Fort George, which enclose the old Portuguese castle on the west side. This castle was probably founded by the Portuguese shortly after they acquired the island in 1530. Marks of the cannon fired by the besieging Moghal admiral in 1690 are still to be seen. We learn from Fryer, who travelled between 1672 and 1681, that Cook, the Company's officer to whom the Portuguese ceded Bombay, on landing in 1664, "found a pretty well-seated but ill-fortified house, four brass guns being the whole defence of the island. About the house was a delicate garden, voiced to be the pleasantest in India; intended rather for wanton dalliance, love's artillery, than to make resistance against an invading foe." The present fortifications do not date further back than 1760, when Sir Archibald Campbell, Chief Engineer in Bengal, was sent out with instructions to fortify Bombay. Some ten years ago, six distinct works were designed to supplement the defences of the fort. The* most important and costly of these is the fort on the Middle Ground Shoal, in the midst of the anchorage, 1,800 yards from the shore. It was intended to carry twelve 300-pounders, in iron-fronted casements; and two 600-pounders, in a turret. Another fort was to have been built on the Oyster Rock, a patch dry at high-water, near the south end of the anchorage, 1,000 yards from the shore, and 3,000 south-west of the Middle Ground. These works have been stopped; but, on the latter site, a temporary battery of eight 10 and 9-inch guns has been erected. The third work is a battery on Cross Island, 1,000 yards from the shore and 4,000 from the Middle Ground, to be armed with seven 300-pounders. The island has been levelled, and a battery of six guns placed on the battery thus formed. A tower on the shore, called the Twelve

Supplementary defences of Bombay.

* *Moral and Material Progress of India*, p. 192.

Foot Patch, is to have two 600-pounders. There is an earthen battery with five 7-inch guns *en barbette* at Malabar Point; and at Kolaba Point there are four 68-pounders *en barbette*, and four 13-inch land-service mortars. Two iron-clad monitors, the *Abyssinia* and *Magdala*, specially designed for Bombay, arrived there in 1871. They have each four 10-inch guns in two turrets. Monitors.

In 1872, Colonel Jervois reported on the state of the defences, pointing out their inadequacy, and recommending that two circular forts, each with eighteen 25-ton guns, should be built at the entrance of the harbour. An enemy would be detained under their guns by electric torpedoes placed in the channel, and exploded by observation from the forts, and further annoyed by three gun-boats carrying 25-ton guns. The cost of such a system of defences is estimated at £932,000. Col. Jervois' Report.

The Island of Bombay.

There are four magnificent views of Bombay, with the harbour, the sea, and the adjacent islands, which should be seen by every one who desires to behold the Portal of the East in all its beauty. There is the view from the eastern spur of Malabar Hill, whereon stand the Towers of Silence; the view from Kumballa Hill, at the point where stands the late Mr. Anstey's bungalow, is different from the first, but hardly inferior in loveliness; the view from Mazagon Hill over the upper part of the harbour, with a glimpse of the Konkan—the narrow plain which lies between the coast and the Western Ghâts—and the curious forms of the hills beyond it, mountains in their mass, but cathedrals and citadels and weird fortresses in form; and finally, the view from Parell Hill, whence, facing the east, the spectator looks down into the picturesque cemetery of Sewree at his feet, and, looking towards the west, he sees over the tops of a forest of palm and other trees, with a glimpse of water between. Four views of Bombay.

The highest point of the island of Bombay is Malabar Hill, 190 feet above the level of the sea. A line drawn from the temple of Mahalakshmi to Mazagon—a distance of less than three miles—gives Extent of the island.

the greatest breadth of the island. From the old light-house at Kolaba to Sion the length is fifteen miles. Bombay island communicates with that of Salsette by the Sion causeway; and the railway gains the main land a little to the south of Tannah, on Salsette, by a similar work. Until a few years ago, Kolaba, at the southern extremity of the island, was a separate island itself, sometimes called Old Woman's Island; but it has since been joined by a causeway. For many years it was only used "to keep the Company's antelopes and other beasts of delight." None of its land was appropriated to individuals, as it was reserved to be a military cantonment.* At Kolaba is the cantonment for European troops, and fine barracks have been recently erected. There is also an excellent light-house at Kolaba, but it is now, however, superseded by the Prongs' light-house, which, unfortunately, is placed in the middle of the Prongs' reef, instead of at its end. There is also a Government Observatory, under the able management of Mr. Charles Chambers, F.R.S. The principal services of the Observatory consist in recording the phenomena of meteorology and terrestrial magnetism, either by means of photographically self-registering instruments, or by personal observation. The correct time is communicated to the shipping, and the public generally, by a daily signal. One of the purposes of the Observatory is the rating of chronometers, of which the Government store is kept at the Observatory, whilst others are received from the ships in harbour, and kept under regular comparison with the standard clock. The time signal-ball drops at the Grand Arsenal Tower at 1 P.M. daily; and a clock is also placed in the Tower and kept in electrical connection with a clock at the Observatory, which compels the former to beat in unison with it, though miles away. A gun is also fired at one o'clock every day. At Kolaba, too, is the Lunatic Asylum for the district.

Kolaba.

Canton-ment.

Lighthouse

Observa-tory.

Time Signals.

Standing at Kolaba Point and looking landward, the harbour is on the right. At its far mouth are the islands of Heneri and Keneri, fortified in the time of the Mahrattas, long the favorite resorts of the pirates of

Heneri and Keneri.

* Fryer-Hamilton's *Hindustan*, and *East India Gazetteer*.

old, watching for prizes. Advancing up the harbour, vessels have to thread their way through the fishing-stakes, often to be found thirty or forty miles out at sea.* The fishing-stakes vary from 50 to 150 feet in length, and are formed of successive pieces of wood scarped across each other, the scarping being from three to five feet. As many as five or six pieces of wood, from eight to ten inches in diameter, are used in the construction of a single stake. The ends of stakes are put into the mud at intervals of twenty feet, and the area enclosed by them often extends to a length of several miles; nets are fastened to them. Fishing-stakes.

Proceeding towards the city, the first thing of note is the New Sailors' Home, at present in course of erection. The foundation-stone of the building was laid by His Royal Highness the Duke of Edinburgh in March 1870. The suggestion that the 'sailor prince' should signalise his visit to Bombay by laying the stone of the Sailors' Home, came from the Rev. W. Maule; and the building, which will cost £30,000, is being erected from subscriptions from the native princes who assembled in Bombay to meet the Duke. The late Khunderao, Gaikwar of Baroda, gave to the fund £20,000. Captain G. F. Henry, the representative in Bombay of the Peninsular and Oriental Steamship Company, is president of the institution. New Sailors' Home.

Near to this building is the Apollo Bunder, a great place of resort in the evening; pleasure-boats, &c., can be obtained there. The Bunder commands a fine view of the harbour; and, for the convenience of visitors, there are refreshment-rooms in a building at the end of it. Apollo Bunder.

Crossing the neck of the Kolaba peninsula, which is here only a few hundred feet wide, the visitor will find himself at the Band Stand. This is the most fashionable evening resort of both Europeans and natives. Unfortunately there is not a city band; but His Excellency the Governor and the regiments on the station lend theirs, so that there is music almost every evening in the season. The Band Stand was erected by the Trustees of the Esplanade Fee Fund. Contiguous to the stand is a Band Stand. Band.

* Dr. Buist's *Guide to Bombay*, p. 79.

field known as the Strangers' Lines, where tents are often erected for the accommodation of members of the Civil and Military services.

Strangers' Lines.

From the Band Stand there is a fine view across Back Bay to Malabar Hill, where the bungalows are embosomed in the luxuriant foliage. Kolaba stretches away to the south-west. The bay is shallow, and studded with reefs. A ship mistaking it for the harbour—an error sometimes committed before the Prongs' light-house was erected—would be doomed; it could never get out. Only a few fishing-boats navigate its perilous waters; no pleasure-yacht has ever ventured into them. During the share mania already referred to, a company was got up to reclaim the bay from the sea; a million sterling was squandered, and the only result was the reclamation of a few hundred acres near Chowpati, about two miles from the Band Stand, and of little value.

Back Bay.

A new and splendid ride—the Kennedy Sea Face—skirts the eastern shore of Back Bay. The Bombay and Baroda Railway runs between it and the Queen's Road, the most frequented drive in Bombay. Rotten Row is situated between the Fort and the continuation of the same railway. The magnificent buildings on the Esplanade overlook Rotten Row, and the fine promenades and drives adjacent. The buildings; the grassy rides; the spacious roadways bordered with trees; the broad and brilliant, if shallow, waters of the bay, reflecting the rays of the declining sun; the boundless sea beyond; the palm-crowned promontory to the north; flat Kolaba, with its church and factories and light-house, to the south-west; the elegant European carriages drawn by handsome Arab or large Australian horses; the ladies and gentlemen taking equestrian exercise in the row; Hindus, Mussulmans, Parsis in striking and many-colored costumes;—all combine to form a picture which, for beauty, variety, extent, and movement, cannot be surpassed by any city in the world.*

Fashionable promenades.

* The scene which presented itself to a traveller on the same spot some threescore years ago was not so brilliant. "I entered Bombay with the impression that it was the seat of wealth, splendour, fashion, and extravagance; but a stroll upon its esplanade removed the

The Esplanade Buildings.

The first building seen from the Band Stand is the New Secretariat. It has a frontage of 443½ feet, and two wings towards the rear, 81 feet in length. The basement contains the Government printing presses; the first floor, the Council Hall, Committee Rooms, Private Departments, and the Revenue Department offices; the second floor accommodates the Judicial and Military Departments; and the third contains other public offices. The height of the building from floor-level to tie-beams is 65 feet. The building is very conveniently arranged, and the main centre is provided with arcaded verandahs in the front, commanding a magnificent view of Back Bay and Malabar Point. The walls are rubble and chunam masonry, exteriorly faced with Kurla stone in courses. The style of architecture is Venetian-Gothic, and the design is by Colonel Wilkins, R.E.

New Secretariat.

Offices therein.

Behind the Secretariat stands the David Sassoon Mechanics' Institute. It cost Rs. 1,00,533, of which Rs. 60,000 were given by the late Mr. Sassoon, and Rs. 20,000 by the Sassoon Memorial Fund. The ground-floor is devoted to a museum, which, however, is not yet very plentifully supplied with specimens. A capacious reading-room and library is reached by a stone staircase. The original promoters of the Institute were the foreman mechanics of the Mint and Dockyard, who met in 1847 and founded it. The movement was soon supported by some leading personages, and, in 1856, Lord Elphinstone in Council made it an allowance of Rs. 300 a year towards defraying the expense of lectures; and ever since Government has continued the donation.

Mechanics' Institute.

Founders.

The next group of buildings is that of the new University. The Cowasji Jehangier Convocation Hall, for beauty of design and harmonious working-out of the minutest detail, is considered not only superior to any public or private building

The University Convocation Hall.

delusion. I believe there are few English watering-places of the third class that could not produce a better evening turnout than this Scotch factory. Everything had an air of dinginess, age, and economy that seemed miserably out of place beneath the ardent clime and radiant skies of Asia.'—Howison's *Foreign Scenes*, vol. ii.

heretofore erected in India, but one of the happiest efforts of its architect, Sir Gilbert Scott. With the exception of the Minton's tile-flooring, the patent roofing-tiles, and some portions of the ornamental iron-work of the galleries, none of the building materials have been obtained from England, Colonel Fuller, the Superintending Engineer, having succeeded in procuring all his materials from one portion or other of the Bombay presidency. The yellow facing-stone is a basalt obtained at Kurla, nine miles from Bombay; the carved and moulded work is of white limestone from Porebunder in Kattiawar, the red pillars from Poona, the long and slender pillars of the stair-cases are of grey granite from Ratnagiri, and the internal masonry generally is of Bombay blue-trap. The teak-wood, of course, is from Burmah, Indian teak being now hardly obtainable. The Convocation Hall seats a thousand persons comfortably. It is 150 feet long and 65 feet wide, with high-pitched gabled roof. At the north end is a magnificent circular window, 20 feet in diameter, the outer ring of which has twelve lights, with stained-glass signs of the Zodiac. The Gothic vaulting in the porch, 75 feet high, is remarkable for the absence of the cross groins. The lines of this vaulting were so traced that, notwithstanding the omission of stone ribs, the lines might accurately spring from the pointed arching without fear of collapse and failure. The stone-work is light and thin, in order that as little weight and thrust as possible may be thrown on the outer walls and buttresses. Unfortunately, the acoustic properties of the Hall are not good. Next the Convocation Hall is the University Library and clock-tower; the latter will be 250 feet high. The Library is cruciform in plan, the nave being 150 feet long and of two storeys. It is a light and brilliant specimen of decorative architecture, with a thousand beauties; though, in the opinion of competent judges, it is supposed that these are lost—and, indeed, the building itself dwarfed—by the enormous tower, beautiful in itself, which is now slowly growing up by its side. It is worthy of note that the whole of the work, both at the Library and at the Convocation Hall, was executed by

The University Library.

The Tower.

native masons and carpenters, who were taught their art since the Esplanade Buildings were commenced—nearly nine years ago. The total cost of the two buildings and the clock-tower will not exceed nine lakhs of rupees. During the share mania, the buildings were estimated to cost twenty-five lakhs. The Premchund Roychund contribution for the clock-tower has accumulated by interest to two and a half lakhs. The private contributions to the building-fund were very large, Sir Cowasji Jehangier Readymoney giving a lakh of rupees for the Hall which now bears his name, the balance being supplied by Government out of the Bombay Land Sales Fund.

The University.

These buildings are the head-quarters of the Bombay University, which was incorporated under an Act passed in 1857. There are four faculties, *viz.*, Art, Law, Medicine, and Civil Engineering. The executive government of the University is invested in a syndicate, consisting of the Vice-Chancellor and eight of the follows, who are elected for one year by the several faculties. There are nineteen endowments in connection with the University, and the following colleges and educational institutions have been recognised by it:—Elphinstone College,* Deckan College,† Free General Assembly's Institution (Bombay),‡

* See page 148.

† On the occupation of Poona by the British Government in 1818, it was found that a certain portion of the revenues of the Mahratta State had been yearly set apart for pensions and presents to Brahmans (*dakshina*). To prevent hardship and disappointment, and to fulfil the implied obligations of the new rulers, the British Government continued these payments; but as the pensions and allowances fell in, they resolved, while maintaining the same total expenditure under the name of the Dakshina Fund, to devote a portion of it to a more permanently useful end. With this view the Poona College was founded in 1821, as a Sanscrit College exclusively for Brahmans. In 1837, some branches of Hindu learning were dropped, the study of the vernacular and of English was introduced, and the college was opened to all classes. From another portion of the Dakshina Fund, Dakshina Fellowships have been founded, of which three—*viz.*, a Latin Readership, a Senior Fellowship, and a Junior Fellowship—are attached to this college. In 1865 Sir Jamsetji Jijibhoy offered to Government a lakh of rupees to provide suitable buildings for the Poona College. These buildings were first occupied in 1868, when Government directed that the name of the college should be changed from *Poona* to *Deckan* College.—*Times of India Calendar.*

‡ This institution arose out of an English school for native youths founded by the Rev. Dr. Wilson in 1832, and originally dependent on local contributions. It was afterwards recognised in 1835 by the Church of Scotland, and in 1843 by the Free Church of Scotland, from which body it receives the greater part of its funds.—*Ibid.*

Grant Medical College,* and St. Xavier's College (Bombay).† In addition to these, there are thirty-five public schools in Bombay.

Law Courts.

The next building, which is still in course of erection, will be a very imposing edifice. It is for the accommodation of the High Courts, which are at present very inadequately provided with accommodation in Apollo Street. The new Courts are estimated to cost fourteen lakhs of rupees.

P. W. D. Offices.

Close by this handsome structure stands the building which accommodates the Public Works offices. It is a very handsome specimen of the Venetian-Gothic style, and, like the Secretariat, is from designs by Colonel Wilkins, R.E.

Post Office.

Opposite the Public Works Offices stands the Post Office, erected in the mediæval style. The building is in three floors, is 242 feet long, and 71 feet in breadth, with wings to the rear. It is 69½ feet high, and there is a tower at either end of the building, forming part of the front façade.‡

From Church Gate Station, Church Gate Street branches off at right-angles, separating the Public Works Office from the Post Office. Where this street intersects Rampart Row is Frere Fountain

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* See page 150.

† St. Xavier's College owes its origin to the development and growth of St. Xavier's School, Cavel, and of St. Mary's Institution and the European Roman Catholic Orphanage. In it undergraduates may pursue their University studies under the same advantages as those enjoyed at the St. Mary's High School. A scholarship of Rs. 125 per annum, tenable for two years, founded by Sir Cowasji Jehangier, for Portuguese Christians, is attached to the college. It will be awarded to that pupil who, having passed the Matriculation, and attended St. Mary's at least two years previous to Matriculation, obtaining the highest number of marks in a written essay, the subject of which shall be announced at the time of the examination held for that purpose.—*Times of India Calendar.*

Delivery and Collection of letters.

‡ Six deliveries of *paid* letters are daily made from the General Post Office, and from the Post Office in each district, commencing at the following hours:—8 A.M., 10 A.M. 11-30 A.M., 12 30 P.M., 2 P.M., and 5 P.M. There are two deliveries only for *unpaid* letters—at 10 A.M. and 2 P.M.; and one delivery for Banghy Parcels—at 11-30 A.M., Sundays excepted. No parcels will be received at, or delivered from, any Branch Post Office. On Sundays there are two deliveries of letters, *viz.*, at 8 A.M. and 2 P.M.

Paid letters posted at the General Post Office or at a Branch Post Office fifteen minutes before any of the hours abovementioned, addressed *to any place in the district in which they are posted*, will be sent out for delivery at that hour. If directed to another district, they will be forwarded for issue at the next following delivery hour.

Collections are made from the Pillar Boxes at 7 A.M., 9 A.M., 10-30 A.M., 11-30 A.M., 1 P.M., and 4 P.M.

—a very pretty structure, adorned with allegorical figures. Continuing along the route towards the Town Hall, the visitor must pass through Elphinstone Circle—an ornamental garden, containing white-marble statues of Lord Cornwallis and the Marquis Wellesley ; and surrounded by a series of handsome buildings.

Frere Fountain.

Elphinstone Circle.

Retracing one's steps to the Post Office, the building next to it, the Telegraph Office,* attracts attention.

Telegraph Office.

The Queen's Statue.

On the north side of this building, where two roads meet, is a white-marble statue of Her Majesty. This statue was ordered by Khunderao, Gaikwar of Baroda, but he died before it was completed ; and Mulharao Gaikwar carried through the work his brother had begun. The statue was given to the citizens of Bombay to commemorate the day upon which Her Majesty assumed the direct administration of her Indian empire. It is a very elegant piece of workmanship, and cost a lakh and a half of rupees. Mr. Matthew Noble is the sculptor. It is a colossal sitting statue, in the best Carrara marble, with a richly ornamented cupola nearly 40 feet high, also executed in the best marble of various colours. The royal coat-of-arms is placed in front of the pedestal, and the Star of India in the centre of the canopy ; while on the enriched part, immediately above the statue, are the rose of England and the lotus, with the mottoes "God and my right" and "Heaven's

H. M.'s Statue.

Description.

* At this office telegrams are despatched to any station in India at the rate of Re. 1 for every six words (exclusive of address), between the hours of 6 A.M. and 6 P.M. At other hours the charge is doubled, as well as on Sundays, Christmas Days, New Year's Day, Good Friday, and the Queen's Birthday. The charge for press messages, at all hours and on all days, is one rupee for twenty-four words. The tariff for private messages from India to British Burmah or Ceylon is Re. 1-8. All cypher messages are charged double. The Railway Companies also send messages from their stations at the rate of Re. 1 for six words, but make no allowance for press messages. The Indo-European Telegraph Company send messages *vid* Russia, to Great Britain and Ireland, at Rs. 21 for ten words and Rs. 2-2 for each additional word ; or *vid* Turkey for Rs. 19-12 for ten words, and Rs. 2 each additional word. The tariff by the Eastern Telegraph Company (Bombay office : Government Telegraph Office) is Rs. 21-4 for ten words, and Rs. 2-2 each additional word. The rate to New York and Boston is Rs. 42-8 for ten words, and Rs. 4-3-8 for each additional word. An extra charge is made to the other American towns.

Light our guide." Besides these accessories, others are introduced into the design, such as the oak and ivy leaf, as the symbols of strength and friendship respectively, adorning the plinth and capitals of the columns; and the oak, ivy, and lotus leaves enriching the moulding surrounding the entire work. The statue, and its elaborate canopy, are works of great beauty, and worthy of the splendid buildings by which they are surrounded.

The Cremation Ground.

Burning-ground.

Leaving the Statue and crossing the Marine Lines—a row of bungalows, occupied chiefly by officers of the garrison—the visitor arrives in Queen's Road, the fashionable drive, where on the right hand is situated the Hindu cremation-ground.

Cremation.

The method of cremation is worth describing. When a Hindu dies, information is sent to the friends and relatives of the deceased. These assemble forthwith, and some of them go to the bazar to buy the necessary articles for the ceremony. They procure two strong bamboos for the bier, some split chips of bamboos, some coir, about half a piece of white-shirting, one earthen-pot, some copper-pots, some pieces of sandal-wood, some clarified butter, rice, and, if the weather be wet, some rosen and oil to replenish the flames. When the men return from the bazar, they make a bier, over which, when ready, some *tulsi* leaves, and sacred grass called *durbhas*, are spread. The ceremony ought to be performed by the son of the deceased; in his absence, by the brother or father, or by any other member of the family. He who has to perform the ceremony must bathe, then shave off his moustaches, and bathe again. All the while, *muntras* (or sacred hymns) from the Vedas are recited by the officiating priest. In fact, every part of the ceremony is attended with the recital of *muntras*. Sacred fire is kindled in the earthen-pot, after which the body is taken out of the house by the friends and near relations; it is well-washed, a piece of cloth is passed round the waist, and the body is then stretched upon the bier and covered by a cloth, but the face is left

Ceremonies observed.

exposed. The bier is then borne away by the friends, and the chief mourner who is to light the funeral pile walks before the procession with the earthen-pot in his hands. All the mourners must be bare-headed. When the procession arrives at the burning-place, the bier is placed on the ground, and the mourners erect a pile. It is done in the following manner :— Four holes are dug, and strong posts, about five feet high, are fixed in them. Between these posts the pile is erected, so that it should not give way while burning. When half the pile is finished, the body is removed from the bier and placed over the pile. *Muntras* are repeated when the holes are dug, and when the fuel is first piled. After placing the body on the pile, some of the relations and friends of the deceased place sandal-wood pieces over the body. *Muntras* and prayers are repeated, and the remaining fuel is heaped over the body to complete the pile. Then the chief mourner walks round the pile three times, and sets fire to it. In about fifteen minutes it is a huge flame, and in about two and a half or three hours the entire body is reduced to ashes. Then the fire is quenched, all the mourners being required to drop some water on the spot in the name of the deceased ; after which the whole procession repair to the sea, or to a tank, to bathe. Thence they proceed to the residence of the deceased, see the lamp which was lighted on the spot where the dead body was kept, and then depart for their respective dwellings. Before returning from the burning-ground, alms are distributed to the poor according to the means of the family.

Funeral procession.

Funeral Ceremonies of the Mussulmans.

Next to the Hindu cremation-ground is the Mussulman cemetery. The funeral obsequies of the Mussulmans are somewhat peculiar. When death is approaching, "a learned reader of the Koran is sent for, and requested to repeat with a loud voice the *soora-e-yaseen*, in order that the spirit of the man, by the hearing of its sound, may experience an easy concentration at death ; for the Mussulman holds that the living principles of the whole system become concen-

Mahomedan burial-ground.

trated and shut up in the head, when death is the consequence."* It is said that when the spirit was commanded to enter the body of Adam, the soul, having looked into it once, observed—"This is a bad and dark place, and unworthy of me. It is impossible I can inhabit it." Then God illuminated the body of Adam with "lamps of light," and commanded the spirit to enter. It looked in a second time, beheld the light, and saw the whole dwelling, and said—"There is no pleasing sound here for me to listen to;" and it is believed that it was owing to this circumstance that the Almighty created music, on hearing which the soul became so delighted that it entered the body. It is also believed that the sound that pleased the soul resembled that produced by the repeating of the *soora-e-yaseen*; and it is therefore read at the hour of death for the purpose of tranquillizing the soul. Other passages are also read by those around the bed, after which *sherbet* made of sugar, &c., is poured down the dying one's throat, to facilitate the exit of the vital spark. The moment the spirit has fled, the mouth is closed; the two great toes are brought into contact, and fastened together with a thin slip of cloth; and *ood* or *ood-buttee* is burnt near the corpse. The burial takes place as soon after death as possible—generally within a few hours. There are professional male and female "washers," whose duty it is to wash and shroud the corpse. The washers dig a hole in the earth to receive the water and prevent its spreading over a large surface, as it is considered unlucky to tread on such water. The washing is performed with great ceremony, and every time water is thrown on the body, the washers say—"I bear witness that there is no God save God, who is the One and who has no co-equal; and I bear witness that Mahomed is his servant, and is sent from him." The body is then shrouded with much ceremony. Should the relict of the deceased be present, they get her to remit, in the presence of two witnesses, the dowry which he had settled upon her, unless that has been done while he was alive. When his mother is present, she says—"The milk with which I suckled thee I freely bestow on thee." This is done

Why Allah created music.

* *Qanoon-e-Islam.* (London, 1832.)

because a person who has sucked a woman's milk is considered to be under great obligations to her, as, without it, he could not have lived; that debt she now remits. Wreaths of flowers are then placed on the body, which is carried to the grave on a bier, or, in the case of those who can afford it, in a box or coffin. It is considered highly meritorious to follow a bier, and on foot.* There are then recited four creeds and the blessing, and one or two persons (relatives or others) then get into the grave, and lay the body on its back, with the head to the north, feet to the south, and the face turned towards Mecca. The grave for a woman is only to the height of her waist, and for a man to his chest. The grave is made about 4½ cubits long; and if the body turns out to be longer, that is considered by the ignorant proof that the deceased was a great sinner. Each person takes up a little earth, and, throwing it into the grave, whispers—"We created you of earth, and we return you to earth, and we shall raise you out of the earth on the day of resurrection." Steps are then taken to prevent the body from being crushed by the earth which fills up the grave, and a mound is made in the shape of a cow's tail or the back of a fish, and water is sprinkled on it in three longitudinal lines. After the burial, *fateeha* are offered in the name of the defunct, and again in the name of all the dead in the cemetery. It is believed that, while this is being done, two angels examine the dead, making him sit up while they enquire of him as to his life and religion. If he has been a good man, he replies to their queries; if not, he is mute; and in the latter case the angels torment and harass him with an instrument of torture called the *gurze*, similar to that with which fakirs beat and stab themselves. After a funeral, wheat, rice, salt, and money are distributed to the poor. The cloth which was spread on the bier

Religious belief.

* It is highly meritorious to accompany a bier, and that *on foot*, following behind it: for this reason, that there are five *furze Kufaeea* incumbent on Mussulmans to observe—1st, to return a salutation; 2nd, to visit the sick, and inquire after their welfare; 3rd, to follow a bier, on foot, to the grave; 4th, to accept of an invitation; 5th, to reply to a sneeze, *e.g.*, if a person sneeze and say instantly after *Alhumd-o-Lillah* ('God be praised'), the answer must be *Yur-humuck-Allah* ('God have mercy upon us').—*Qanoon-e-Islam*, chap. xxxviii.

becomes the grave-digger's perquisite. This, however, he spreads on the grave on every *ziarat* day until the fortieth, after which he keeps it to himself.

Old Cemetery.

Contiguous to the Mussulman burial-ground is the old European Cemetery, now no longer used. The old wall was recently removed, and some new iron fencing substituted. The tombs are, for the most part, in a state of decay, and the action of nature has been accelerated by native thieves, who steal grave-stones for the purpose of using them to crush the ingredients before mixing in their curry.

Malabar Hill.

Continuing his progress along the Queen's Road, the visitor now approaches the pleasantest part of the island, Malabar Hill. This rocky promontory was formerly the resort of tigers, &c., but it is now dotted over by the bungalows of the leading inhabitants of Bombay. A bungalow prettily situated on Malabar Point is occasionally occupied by His Excellency the Governor. It is on the eastern spur of this hill, too, that are situated the Towers of Silence, where the Parsis dispose of their dead.

The Parsis.

Their history and religion.

The Parsis—the Medes* and Persians of the Scriptures—are almost peculiar to Bombay and its neighbourhood. They are followers of Zoroaster, and the history of their arrival and sojourn in India is as follows:—In the middle of the seventh century, the Arabs invaded Persia, under Caliph Omar, and traversed the country, compelling the conquered nation to accept either death or the Koran. Almost the whole of the Zoroastrian population of Persia embraced the faith of Islam, and nearly every trace of the religion of Zoroaster was obliterated. Some who held firm fled to the mountainous districts of Khorassan, and remained there about a hundred years, in the unmolested enjoyment and practice of their religion. Persecution, however, at last reached them in their retreat, and a considerable number fled from their enemies and emigrated to the little island of Ormus, at the mouth of the Persian Gulf. Here, too, they were followed by their pursuers, when, engaging some ships, they set sail with

Landing at Ormus.

* The Parsi priests claim to be descended from the Medes who furnished the priestly caste of the old Persian empire.

their wives and families, and landed at Div or Diu, a small island in the Gulf of Cambay, where they remained for nineteen years. Their reasons for leaving this refuge are not known, but there is reason to suppose that it was on account of some augury. They sailed thence A.D. 717, and, encountering a storm, they prayed and promised the Lord that, if they reached the shores of India, they would kindle on high the flame sacred to Him, in grateful remembrance of His kindness and protection. They arrived safely in Sanjan on the coast of Guzerat, and were well received by the ruler of that part of India, of whom they asked protection. Before granting their request, the chief asked them the nature of their faith. They told him that they worshipped the sun and five elements, as well as the cow; that they wore the sacred shirt, as well as a cincture for the loins, and a cap of two folds; that they ornamented and perfumed their wives; that they were liberal in their charities, especially in excavating tanks and wells; that they fed the sacred flame with incense; that they practised devotion five times a day, &c. The historian of the Parsis, Mr. Dossabhoy Framji, cautions his readers against supposing the foregoing to be the fundamental principles of the Parsi religion. "It is necessary," he says, "to state frankly that the first refugees of our faith in India played the part of dissemblers;" and that their religious code was framed with a view of gaining the favor of the Hindu Rajah whose protection they sought; and it is not unlikely that, having learnt something of the Hindu castes, customs, and religion, they knew the points which would please him most. The device succeeded, and permission was given them to reside in the country on condition of their adopting its language, eating no beef, and wearing the sugar-loaf hats which were then the fashion in Guzerat. They were also required to dress their females in the Indian fashion, to wear no armour, and to perform the marriage ceremony of their children at night, in conformity with the practice of the Hindus—all which they stedfastly do now, although it is nearly twelve centuries since the compact was made. The hideous Guzerat hat they

Arrival in Guzerat.

Device practised to gain protection.

Conditions imposed & still adhered to.

wear to this day; but it is not for those who carry the European "chimney-pot" to throw the first stone at them on that account. Settled in their new home, the Parsis did not forget the promise they had made, and, erecting a fire-temple in Sanjan, they kindled the sacred flame, which is still burning, never having been allowed to die out. From the practice of praying before the "sacred flame" in their temples, the Parsis are known as "fire-worshippers," but they do not adore the flame; they simply honour it as the emblem of the Pure and the Bright—Ormuzd. The Parsis gradually spread over Guzerat. There are now more of them in Bombay than in any other city of India, numbering no less than 44,091, or 6·84 per cent. of the whole population of the island, and about one-third of the total number of Parsis in India. The social life of the Parsis, formerly very similar to that of the Hindus, is gradually becoming assimilated to the European model. Their respect for fire prohibits their smoking tobacco, but chairs and tables, and a European mode of eating, has given place to the customs which, until recently, they practised in their houses, though in most Parsi families the males take their meals separately from the females. The Parsis are a far more sociable race, both among themselves and with strangers, than either the Hindus or the Mussulmans. They are a commercial class of people, fond of speculation, and are seldom found in menial employments. A great many of them are wealthy, while others are members of the professions, and what are considered the most lucrative callings, such as bankers, merchants, brokers, &c. They worship God alone; and they base their code of morals on the teachings of Zoroaster. A good conscience, they consider, is the best court of equity, and truth is laid down as the basis of all excellence. Virtue is to be practised, and industry is recommended as a guard to innocence and a bar to temptation. Principles of hospitality, general philanthropy, and benevolence are also strongly inculcated. The Parsis always pray aloud, and crowds of them may be seen at their devotions on the Back Bay

First fire-temple erected.

Progressive spirit.

Religious belief.

beach at every sunset; while the groups of Parsi women watching for the first glimpse of the new moon from the same spot, form a pretty oriental scene. The Parsis believe in a paradise* and a place of punishment hereafter. The mode of disposing of their dead deserves a chapter.

The Towers of Silence.

The approaches.

On the north-east crest of Malabar Hill are situated the famous Towers of Silence. There are two approaches to the extensive tract of ground on which they are built. From the Gowalia Tank Road towards the north, a winding avenue of recent construction leads to the gateway at the top, on which is an inscription that none but Parsis may enter there. This prohibition was rendered necessary, it is said, by the unseemly and inconsiderate conduct of those who used formerly to be admitted within the enclosure. The gateway is also reached by a sort of giant staircase, half a mile long, which, starting from the Gaumdevi Road close to Back Bay, comes almost straight up the hill. Both approaches are striking and picturesque. The roadway is formed by boldly scarping the black basaltic rocks which form the hill, and every nook and cranny of those precipitous walls is filled with the richest tropical vegetation. What we may call the grand staircase is overhung and shaded by palms and other trees; and this, together with the fact that it is the invariable route along which the dead are borne in solemn procession, invests it with a more sombre interest than the less fatiguing ascent on the northern slope.

Within the gates.

The visitor who has obtained permission to disregard the notice at the entrance, will find, on passing the portals, that he is in a kind of small court-yard, from which he can only advance by mounting some half-dozen steps. On the right is the

* Our word Paradise comes from the Zenda-avesta. A *para dhika, i.e.*, enclosed park, was in ancient times necessary to the safety of every family or group in the Persian plains, and fearful denunciations were levelled by Zoroaster at whoever removed the paling or fence. *Para* survives in our word 'park,' and *dhika* in 'thick'—*i.e.*, something that encircles, or smears around.

old Suggree, a low stone building open on all sides, in which prayers are offered for the dead. The chief object, of having the court-yard lower than the level on which the old Suggree is built, is to prevent the ceremonies from being profaned by the gaze of unbelieving eyes. When the mourners are numerous, they group themselves around the building, and, as it is open, they can, of course, see all that goes on within, and take part in the prayers. The dead, it should be mentioned, are never taken into the Suggree. Between the Suggree and the garden is the new Suggree—a large and handsome building with arched roof, erected at the expense of Mr. Dinshaw Manockji Petit, when the old one was found to be inconveniently small. Passing this new erection, we enter a beautiful garden ablaze with flowers, amongst which roses are conspicuous. Along the walks are iron garden seats of elegant design and European make. Here the relatives of the dead rest after the toilsome ascent of the basalt staircase, and on subsequent occasions they come hither to pray. Beyond the garden, on the undulating summit of the hill looking towards Malabar Point, is the park-like, grass-covered tract in which, at irregular intervals, are the Towers of Silence where the dead are laid. The Towers, of which there are six, are round, and on an average from thirty to forty feet high, and about as much in diameter; one or two are, perhaps, higher. They are solidly built of stone, the walls being some three feet thick; and they are all colored white. There is no window, and only one door, which covers a small aperture about a third of the way up. To this aperture access is obtained by a narrow stone causeway, up which the bier-bearers with the dead alone may venture. So sacred are the Towers, that no one, except the bearers who are set apart for the purpose, may approach within thirty paces of them. Inside, on the rock pavement, spaces are marked out on which the dead are placed to await the vultures, and pathways are marked out for the bearers to walk upon, without defiling the place where their unconscious burdens are to rest.

The Six Towers.

When a Parsi dies, his soul goes to heaven, or elsewhere, according as he has spent a holy or a wicked life; but his body must not be tainted by corruption. Therefore it is forthwith washed and purified, and, if there be yet time, it is at once carried to the Towers before sunset. If death takes place, however, after, say, three o'clock, when there would not be time to gain the Towers and pray becomingly before dark, the body is kept till the early morning. Having been rendered undefiled, it is clothed in white, and prayers are offered at the house by the family and friends. None may, henceforth, touch it; it is pure, and must so remain. The women of the family take a last look, and the light bier, on which it has been placed, being covered with a white shroud, it is carried by the bearers to the hill. No vehicle can on any account be used; no one must even follow in a vehicle; the whole journey, no matter what the distance, must be made on foot. All who form part of the *cortége* must have been washed and purified and clothed in white, and to touch any one would be to become defiled. The women, in some cases, wear mourning—black; but the men never. No woman ever attends a funeral; the female relatives of the deceased always remain at home on that day, but they may and do go afterwards to the garden near the Towers to pray. Following the bier-bearers in procession, holding scarfs passed from one to the other, those forming the *cortége* wend their way slowly to the foot of the steps leading to the top of Malabar Hill. Laboriously ascending these, they reach the crest in a quarter of an hour, and the priests go through the sacred ceremonies in the Suggree. Some Parsis consider that the prayers thus rendered have the effect of averting all decomposition or other defilement; but this view is not universally entertained. When the prayers are over, and those who have come the long and weary journey are somewhat rested, the body is borne to the foot of the causeway leading to the door of one of the Towers. Here, the face is uncovered, so that all may take a last lingering look; it is then covered again, and the form disappears into the Tower. The six Towers are scattered over a large and park-

Purification of the Dead.

Funeral procession.

like enclosure, secluded by its elevation from every eye. Outside the lofty wall which encircles the whole space, there are hundreds of acres of land, partially cultivated, which the Parsis possess, and which they have carefully kept as a sort of neutral territory between the domain of outsiders' bungalows and that of the Towers. What goes on inside, therefore, no one can see; but what happens is this. Some fifty vultures make their abode in the lofty palms within the enclosure, and when the body is deposited in the Towers, they swoop down, and do not rise again till all the flesh has disappeared. In a few hours, nothing of the body remains except the bones. Those who retail stories about fragments of human bodies being taken up by the vultures and carried outside the park and the surrounding neutral belt, and then being dropped on the roads, are ignorant of the habits of these jackals of the air. On the American Pampas, when they alight upon their quarry, they are so loth to quit the spot that they eventually become unable to fly from it on the approach of horsemen, who find no difficulty in knocking them over with their whips. Within the Towers they are secluded from all disturbance, and those who have watched for the purpose have never seen them come to the top with any substance whatever. It is only when all is over that they come to the summit of the Towers, where they remain for hours without moving. Then they take their heavy flight to the palms around; seldom, indeed, do they go beyond the trees in the rough ground outside the vast compound. There is nothing of a sacred character ascribed to these obscene but useful birds. They are regarded simply as a means of preventing decomposition, and in accomplishing that task they perfectly succeed. The consequence is, that the grounds about the Towers have nothing of the hideous taint of the charnel-house. There is nothing obnoxious to health; there is not the faintest odour of death to mingle with the perfume of the roses blooming around.

The Vultures.

Turning from these sombre, but necessary, details, let us spare a word for the magnificent view which bursts upon him who stands on the Suggree steps and looks across the island and the bay beyond. Never has eye beheld a lovelier or more varied scene. The white walls of innumerable bungalows

The View over Bombay.

and public buildings gleam upwards through a forest of palm trees, over the tops of which you seek in the middle distance the great sea, which is our harbour. Beyond rise, in majestic shade, Elephanta and other mountain-islands; while high over all is the clear sky, which permits all to be seen as through a glass of power. Casting the eye towards the south, we see the Fort with its public buildings glistening in the sun, while Back Bay, with Kolaba beyond, make up another, and only a less beautiful, picture. Filled with the visions of this matchless paradise, the mind forgets the swift fate of the mortal part of man in the vulture-haunted Towers, and follows the swifter flight of his immortal soul to heaven.*

Maha-lakshmi Temple.

Descending by the northern slope of Malabar Hill, we pass Mahalakshmi temple, the most westerly point in the island, and arrive at Breach Candy, where is a pleasant drive by the sea-side, and whence can be seen Worlee and Worlee fort. This portion of the island was at one time marshy, being flooded at high-water. But the vellard constructed by General Hornby kept out the sea, and thus changed the sanitary conditions of the whole island. From being the most deadly, it has become one of the healthiest places in the East.

Worlee Fort.

At Mahalakshmi, the visitor has the choice of two courses—either to keep to the coast, and, skirting the picturesque Mahim woods, leave the island and cross over to Bandora, or, turning down Clark Road and proceeding along Arthur Road, he may proceed to Parell Hill, from the top of which a view of the whole island may be obtained. At Parell is Government House, the principal residence of the Governor of Bombay.

Parell Hill.

Government House, Parell, was at one time a Portuguese place of worship. It was confiscated by the English in 1720. The first Governor who lived there was General Hornby, from 1771 to 1780; and it has since been used as a residence for successive Governors. When Sir Evan Nepean quitted Bombay in 1819, he left a minute regretting that he had been compelled, by the necessities of Government, to

Government House.

* *Times of India*, July 27, 1873.

neglect the house at Parell.* Mr. Elphinstone, when Governor, built the right and left wings, in the latter of which are the rooms set apart for the use of His Royal Highness the Prince of Wales during his stay in Bombay. The house is not one of very great pretensions, though there is a fine dining-hall 38 feet long by 30 broad, with a fine verandah on three sides 10 feet broad. There is also a large ball-room. These two rooms occupy the place of the old Portuguese chapel; and where the altar was, the billiard-table now is. The house is surrounded by a pretty garden.

Elphinstone College.

Returning now towards the Fort, the Elphinstone College is passed. This elegant building is well worth visiting. The College arose out of the separation, in the year 1856, of the professorial element from the Elphinstone institution, which from that date became a High School. The Elphinstone institution was started in 1827, when the Bombay Native Education Society called a meeting to consider the most appropriate way of testifying the affectionate and respectful sentiments of the inhabitants of Bombay to the Hon'ble Mountstuart Elphinstone on his resignation of the Governorship of Bombay. The result of the meeting was that a public subscription was opened, and Rs. 2,29,656 collected towards the endowment of Professorships for teaching the English language, as well as the arts, sciences, and literature of Europe. These were called the "Elphinstone Professorships." The above-named sum was afterwards increased to Rs. 4,43,901, and the interest of it is augmented by an annual subscription from Government of Rs. 22,000. In 1860 the Bombay University recognised the College; and the present buildings, which bear the name of "Cowasji Jehangier Buildings," were built in consequence of a gift to Government of Rs. 2,00,000 by Mr. (now Sir) Cowasji Jehangier Readymoney. The foundation-stone was laid by Sir Bartle Frere in 1866, and the building was opened in 1871. The building contains, on the basement floor, four lecture-rooms very handsomely furnished, and one large room, which looks like an entrance-hall. Above

Opened 1871.

* Murray's *Handbook of India*.

these are, what some believe to be, the two finest rooms in Bombay. The top floor is a huge dormitory, containing about fifty separate rooms.

Opposite this building are the Victoria Gardens, and the Victoria and Albert Museum. The museum was begun as a private work ; but, owing to the difficulties of 1866 so often referred to, funds could not be obtained in support of it ; and it passed into the hands of the Public Works Department, to be completed from imperial funds. The museum was established for the purposes of exhibiting the raw products and manufactures of India, and for illustrating the process of important manufactures. As yet, however, the specimens are almost entirely from this presidency. The gardens surrounding the building are extensive, and are a favorite pleasure resort. Victoria Gardens.

Crossing the railway bridge at Byculla, the native town is entered. The peculiar style of the shops in the bazars—as the long streets are called—together with the numerous temples, form one of the most attractive features to the traveller fresh from Europe ; while the great tanks which are occasionally met with, also present a picture peculiar to the East, especially those of Mombadavi and Bhuleshwar, in which Hindus purify themselves after assisting at the cremation of a deceased friend or relative. The tanks are for the collection of water in case of drought ; and it is a very favorite mode of showing charity, and of propitiating the gods, to construct one for the public. The water in the tank at Mahalakshmi is the only one in Bombay used for drinking, and indeed, Bombay being constantly supplied with water from the Vehar Lake, the tanks have sunk into comparative disuetude. Native Town. Tanks.

In the Parell Road is the Sir Jamsetji Jijibhoy Hospital. Though Bombay had long possessed a European hospital, it was not until 1845 that any accommodation was made for the treatment in-doors of poor native patients. Dr. Mackie, in 1834, established a dispensary, where medicine and advice were bestowed gratuitously. Numerous contributions were received in support of this from the charitable, Sir Jamsetji Jijibhoy taking the lead in munificence. The dispensary, however, was utterly inadequate for Jamsetji Hospital.

the wants of the suffering, and Sir Jamsetji resolved on the erection of a suitable establishment. In 1843 he gave Rs. 1,70,000 towards the erection of the present hospital, which was completed in 1846, at a cost of Rs. 2,00,000, the balance being found by Government. It accommodates 300 patients.

Grant Medical College.

The lofty Gothic building in front of the hospital is the Grant Medical College, erected in 1843 to the memory of the late Sir Robert Grant, Governor of Bombay from 1836 to 1838, at a cost of Rs. 90,000, one-half of which was raised by public subscriptions, and the other half by the Court of Directors of the East India Company. Here medical assistance is given to natives free of charge; and there are Professorships of Chemistry, Anatomy and Surgery, Midwifery, Materia Medica, and Medical Jurisprudence.

Crawford Market.

The visitor, on leaving these buildings, comes out of the native town near the Crawford Market. This splendid market is a monument of the energy of Mr. A. T. Crawford, whose name it bears. The necessity for a really good market having become apparent, Mr. Crawford, when Municipal Commissioner, had designs prepared; and that by Mr. Emerson, architect, was adopted. A site was granted by the Bombay Government on the Esplanade Cross Road, and the works commenced in 1866. In the course of 1870, the group of buildings was completed. The estimated cost was set down at Rs. 5,59,866, but the actual cost was Rs. 11,18,492, or nearly 100 per cent. over the estimate. The entire cost of the Municipal markets and slaughter-houses in Bombay and its suburbs amounted to Rs.15,90,408. All this was wholly defrayed by the Municipality. The Crawford Markets will bear comparison in architectural pretensions with any similar erection in Europe. It comprises two wings, containing 511 stalls and 12 shops, besides store-houses, granaries and offices, and quarters for the Superintendent. It is an iron building, and is lighted up with 116 gas lamps. There is a fruit, a vegetable, and a grocery market; one for mutton and fish, another for beef, and one for sundries. It faces south-west—the length of the south-east wing being 218 feet, and the north-west wing 416 feet—the building being

Dimensions.

surmounted by a tower, with a handsome illuminated clock by Dent, which cost £300. It was during the Governorship of Sir Bartle Frere that the construction of the Crawford Markets was undertaken; and in 1867 he opened the first portion with a Flower Show.

Besides the Crawford Market, there are small iron markets in the Fort, at Bhuleshwar, and in the Erskine Road, and one in Mazagon is in course of construction; there are also three slaughter-houses at Bandora—all maintained by the Municipality. The total income is about Rs. 2,14,000 per annum realized from fees, &c.; but it does not quite cover the expenditure, as the amounts paid to Railway Companies for the meat trains, and the outlay for drainage and repairs, are very heavy. Minor markets.

There are several places of interest in addition to those already mentioned.

The Town Hall is situated upon "the Green" in front of the castle. It was begun in 1820, took fifteen years to build on account of various delays, and cost about six lakhs, part of which was raised by lottery. In the upper storey is the grand Assembly Room, in which public meetings are held, and banquets and balls take place; and the Museum, Assembly Room, and Library of the Bombay Asiatic Society. The latter was founded by Sir John Malcolm, and furnished with 100,000 volumes. Here also are the Levée Rooms of the Governor and Commander-in-Chief, and the Council Chamber. The statue of the Hon'ble Mountstuart Elphinstone in the Assembly Rooms, of Sir J. Malcolm at the head of the staircase in the grand vestibule, and of Sir C. Forbes are all by Chantrey, and merit attention. There are also statues to Mr. Stephen Babington, Sir Jamsetji Jijibhoy, Mr. Charles Norris, and other worthies. The Town Hall.

The Mint is close to the Town Hall, but somewhat farther back. It was completed in 1827. The machinery is capable of producing Rs. 1,50,000 in a day. The Mint.

Churches and Chapels.

The Cathedral of St. Thomas stands in the Fort. It was built in 1720 as a garrison church; and dignified with the rank of cathedral on the see being established in 1833. It cost Rs. 43,992, raised principally by The Cathedral.

Churches. subscriptions amongst the European inhabitants, Government subscribing Rs. 10,000. It is a very plain building, but the interior is elegant and commodious. The present Bishop is the Right Rev. Henry Alexander Douglas, D.D. Round the walls of the church are several monuments, chiefly in memory of worthies of the East India Company. Several of them are worth examination, as they are from the studios of celebrated English sculptors; and one to Captain Hardridge, by Bacon, is a fine work of art. The other places of worship in Bombay are—

St. John the Evangelist, Kolaba, generally called the 'Memorial' church, because it was erected "in memory of those officers and private soldiers who fell in the invasion of Affghanistan, in the retreat from Cabool, and in those days of victory at the Khyber Pass, at Jellalabad, Gugdulluck and Tezeen, at Kandahar and Ghuznee, and in the re-occupation of Cabool, which restored the supremacy of the British power, and the dignity of the British name, in the East." It is a very pretty church, erected at a cost of two lakhs, partly contributed by the public and partly by Government. In addition to the usual services, the church is opened from sunrise to sunset for all who seek retirement for prayer and meditation.

Christ Church, Byculla, is a fashionable place of worship.

Holy Trinity Church, Sonapore, was opened in 1840, and was established by the Indo-British Mission.

St. John's Church, Mazagon, is the resort of the ritualists in Bombay, and divine service is conducted by the Cowley Fathers.

The Church of Scotland.—The functions of this church-court are to superintend the training of candidates for the ministry in the Church of Scotland in the presidency of Bombay, to grant licences to qualified preachers, and to ordain to the office of pastor in the church, under the authority of the general assembly of the Church of Scotland.

St. Andrew's Church (Church of Scotland) is situated near the Apollo Bunder.

The Presbyterian Free Church is on the Esplanade. All the seats are free.

The Ambrolic Mission Church is in Back Girgaum Road, and is in connection with the Free Church of Scotland.

The Bombay Baptist Church is in the Bellasis Road, opposite the Byculla Club.

Fort Chapel, Bombay, is the Roman Catholic cathedral of N. S. de Esperança. The other Roman Catholic churches in Bombay are—St. Xavier's College, Esplanade; St. Mary's Institution, Nesbit Lane, Mazagon; and N. S. de Rozario, Mazagon.

There are also several Missionary Societies, of which five are English, one Scotch, one Irish, one American, and seven Indian.

Literary and Scientific Institutions.

The chief of the Literary and Scientific Societies is the Bombay Branch of the Royal Asiatic Society, which has a good library and museum in the Town Hall. The Bombay Geographical Society has been amalgamated with this Society. The Sassoon Mechanics' Institute has been already noticed.* The Parell Mechanics' Institute is situated near the Locomotive Department of the Bombay, Baroda, and Central India Railway, and is chiefly supported by the men employed at the works. The Victoria and Albert Museum is noticed at page 149. There is also a Medical and Physical Society, as well as about twenty other libraries, institutes, &c., some European, other native. There are, too, a Chamber of Commerce, a Trade Protection Society, the Bombay Association, and a branch of the East India Association, the object of the two latter being to promote the general welfare of India. Institutes.

The Dockyard of Bombay is a monument to the industry, enterprise, and integrity of a Parsi family. Lowji Nusserwanji was the foreman engaged in building the first ship launched at Surat. His ability and honesty were so highly thought of by the Company's officers, that they sent him to Bombay to establish a dockyard. This was in 1736. Since then Bombay Dockyard.

* See page 134.

many a teak frigate has been built in the Bombay slips; but the greater facility with which ships can be built in England, and sent through the Suez Canal, has ruined the ship-building trade of Bombay, and now nothing but native craft and coasting ships are launched in these waters. Docks for the reception of ships are, however, in preparation, and one has been opened. Messrs. David Sassoon & Co. have this year opened the "Sassoon Dock"—the first wet dock constructed in India for mercantile purposes, supplying to the Port of Bombay a want that has been long felt. The dock is 645 feet long, and at its greatest breadth is 292 feet wide, covering a space of 3½ acres. The entrance is 40 feet wide, and is 26 feet 9 inches below the level of the wharves. The depth of water varies from 18 to 23 feet on the sea at high-water. The wharves have a frontage of 1,500 lineal feet, and have an area of 2¾ acres, and, in addition, there are 18,000 square yards of land for storage, &c.

Sassoon Dock.

Its dimensions.

The Strangers' Home is an asylum for poor and unemployed Europeans, and was originally established in 1864. Its utility has been sufficiently proved by the fact that over 6,000 Europeans of all classes and nations, comprising a good number of gentlemen's sons and men of attainments in reduced circumstances, have received relief; and of this number, the majority, being destitute, were sheltered and fed free of charge. The Home is supported by subscriptions and donations, supplemented by a Government grant of an equal extent to the total amount collected. It is managed by an executive committee of the Strangers' Friend Society, with His Excellency the Governor for patron, the Chief Justice and His Excellency the Commander-in-Chief, vice-patrons, and a president and nine members. There is an honorary secretary, and also a resident superintendent. The Home was formerly in Lower Kolaba, but early in 1873 it was removed to more airy and suitable premises in Mazagon, opposite the Hope Hall Hotel. Besides the really destitute, Government pensioners, and such as are unable to pay the rates charged at boarding-houses in Bombay, are also admitted; the

Strangers' Home.

How supported.

pensioners are charged according to the amount of pension they receive, and the other men Rs. 30 monthly, including all extras, such as bed-clothing, &c. The Home could not, however, be maintained without Government assistance, as the private contributions do not cover the expenses. Although there is a limited time fixed for the non-boarders, these men are seldom turned out after the expiry of the limit, unless they be irreclaimable characters, when they are then sent into the Government Workhouse.

European General Hospital.

The *European General Hospital* is intended for the reception of all European seamen, those of the Bombay Marine, as well as those belonging to merchant-ships; for all the warrant and non-commissioned garrison staff; for European pensioners, the Governor's band, constables of police, and Government office clerks; also for Europeans, males or females, unconnected with the service of Government. It has accommodation for 150 patients, who are received at all hours, day or night. Visitors are admitted daily between the hours of 9 to 11 A.M. and 5 to 6 P.M. The present building is inadequate for the work of the hospital, and it is expected that before long a more suitable place will be built. An Endowment Fund is being raised by public subscription, and it has already reached upwards of Rs. 50,000.

Refuge for Decayed Animals.

Pinjrapole.

Pinjrapole is a charitable institution of a peculiar character, its only object being the saving of animal life. Founded some forty years ago by the first Parsi baronet, the late Sir Jamsetji Jijibhoy, and Mr. Khemchund Motichund, the well-known banker, it has since continued to flourish, until the fund, which originally amounted to about three lakhs of rupees, has now reached upwards of eight lakhs. It is situated in the heart of the native town in Bhuleshwar, the buildings covering an area of about 2,000 square yards. The structure is irregular and thoroughly Indian, and is divided into courts, around each of which are ranged sheds for the accommodation of animals, birds, and insects; one court-yard being set apart for the caretakers and other

Its uses.

domestics of the establishment, and for the storing of food, &c. There are also sick sheds for dogs and cattle attached. To this asylum are sent all the aged and infirm cattle of the island, besides which the more orthodox Hindus purchase bullocks and sheep from the butchers to save them from the knife, and then send them to Pinjrapole. The institution is maintained by donations, which depends a great deal upon the state of trade, as a percentage is levied, or at least asked for, by the managing committee and trustees upon opium, raw-cotton, sugar, and jewellery. It is not, however, compulsory upon the native traders to subscribe; and, of late, the contributions have fallen off, owing to the depression of trade.

How supported.

Branches.

The institution here has a branch at Chimmur near Kurla, and another at Bhewndy near Callian; to the former place, most of the horses are sent. Besides maintaining these branches, Pinjrapole contributes about Rs. 25,000 annually towards establishments of a similar nature at Surat, Poona, Ahmedabad, Palitana, and other places in the presidency. It maintains in all about 2,000 bullocks and cows, 125 horses, 500 sheep, numberless dogs, deer, pigs, poultry, parrots, pigeons, monkeys, rabbits, cats, porcupines, rats, caterpillars, snakes, turtle, and all kinds of vermin. The cats are kept at Chimmur, as they are destructive; and the snakes are, after a time, taken into a jungle, or any uninhabited part of the country, and set free. Since the Act for the Prevention of Cruelty to Animals came into force, a great influx of superannuated cattle has taken place from the pounds and other places. The annual cost of the maintenance of the live-stock and the establishment generally was, in 1873, Rs. 93,851-7-10, while the contributions amounted to Rs. 1,10,453-4-4. A veterinary surgeon is attached to each of the three institutions, as well as an overseer. There is also a manager, a treasurer and two assistants, and a warehouse-keeper—the whole being under the control of three trustees (Sir Jamsetji Jijibhoy, Mr. Cursetji Furdunji, and Mr. Mullukchund), and a committee of thirteen Hindu and two Parsi members. Formerly the animals were not properly taken care of, and were

Animals, &c., kept.

Cost of maintenance.

allowed to form a kind of "happy family;" but the present secretary, Mr. Pitamber Nanabhoy, has introduced improvements in the proper classification of the animals, attached a dispensary, and engaged the services of a veterinary surgeon; so that, as regards order and cleanliness, Pinjrapole has improved considerably, more especially in its sanitary arrangements.

Improvements effected.

The Caves of Elephanta.

In regard to the places worth visiting in the harbour, the first in importance and interest is the island of Elephanta, with its wonderful caves. This island, which has a circumference of about four miles, is situated six miles from Bombay. It is covered with bushes interspersed with the palmyra tree. The Hindu name of the island is Gharapuri, which means "the town of the rock" or "of purification" according to Dr. Wilson, and "the town of excavations" according to the Rev. J. Stevenson.* The Portuguese gave it the name of Elephanti, from a large stone elephant that stood near the old landing-place on the south side of the island.† This elephant gradually crumbled to pieces, and in 1864 it was removed, a shapeless mass of stones, to the Victoria Gardens, Bombay; and a statue of a horse, on the other side of the island, similarly disappeared between 1712 and 1764. The Great Cave, which is the principal sight in the island, is entirely hewn out of a hard, compact kind of trap-rock. Over the entrance to the cave is a thick mass of perpendicular rock clothed in verdure. When inside, the visitor sees that he is in a temple, the stupendous roof of which is supported by massive pillars that "recede in vistas on every side," and some of which have split and fallen from the enormous weight above them. Along the walls are gigantic carved figures hewn out of the rock. The cave is 133 feet in length, and consists of three parts, divided by two rows of beautiful pillars, from 14 to

Elphanta Caves.

Etymology of name.

Description.

* *Journal of the Bombay Asiatic Society* for July 1852.

† *Elephanti described and illustrated*, by James Burgess.

16 feet apart, and from 2 to 3 feet in diameter, and two chapels, one at each side. There are various other caves a little way off, but they are comparatively of insignificant size. The first object that attracts attention is a cylindrical stone terminated by a hemisphere intended to represent Siva in his character of the prolific power of nature. The chief figure is the immense Trimurti, or three-faced bust, at the further extremity of the cave. It is 19 feet in height, and represents Siva in his threefold character of Brahma, Vishnu, and Rama—the Hindus considering the divinity as one, but causing three impersonations to emanate from him—the creator, the preserver, and the destroyer. On the right of the central figure, and on the left of the spectator, is a representation of Ardhanarishvar, or Siva in his character of half male and half female. The Bull, on which two of the hands of the figure lean, is a constant attendant of Vishnu. If the visitor now retraces his steps, and turns to the first compartment of the cave on his left, he will see two principal figures, Siva and his wife Parbati. From the head of the male figure, the Ganges is represented as flowing, with the three figures, representing the Ganges, Jumna, and Sursati, which unite with it. Elephanta is one of the most recent of a vast series of cave-temples and cave monasteries peculiar to Western India, several of which date some centuries before the Christian era, minute accounts of most of which will be found in the *Transactions of the Bombay Branch of the Royal Asiatic Society*. Every one must regret the mischievous wantonness of the visitors who, especially in 1865, broke off the noses of two of the faces of the Trimurti, and injured several other figures. These marvellous caves, which are supposed to have been carved about the eleventh century, are sometimes illuminated, when a magnificent effect is produced. They ought certainly to be visited by all who wish to see a wonderful work of art; and, as there is a splendid view from the island, the trip there is always enjoyable. During the monsoon in the present year, a tiger swam from the main land to the island, and took up its sojourn there for several days.

Statues of Siva.

Injury by visitors.

Hog Island is also worth visiting on account of its celebrated hydraulic lift. This apparatus is often styled "White Elephant," not only because it is coloured with some seven acres of white paint, but also because, though erected at an enormous cost by Government, it is not used, while it requires a large outlay to keep it up. The structure is well worth a visit. Eighteen iron pillars rise out of the water in a row, exactly opposite eighteen in another row, eighty feet off. The water between the rows is about seventy feet deep, so that it is evident we do not see half of the pillars, which are only about forty feet above the sea-level. What is not seen is more important perhaps than what is, for it contains the hydraulic chambers into which the tiny streams of water are forced, which compel the 'rams,' or round iron shafts, to rise when it is necessary to 'lift' anything. These round iron shafts go upwards inside the great hollow pillars, and at their tops are fixed strong iron arms—cross heads—which each lay hold of chains of enormous strength. We do not see the other end of these chains, for they are full fathoms deep beneath the surface of the water; but if we could see them, we should see that they are each made fast, below, to a gigantic girder, eighty feet long, which goes straight across to the foot of the opposite column, where a similar chain lays hold of it. There are thirty-six of these girders; and when the water is forced into the hydraulic chambers at the bottoms of the columns, they must go up, for the 'rams' can by no means stay down. The little rills of water sent in through little pipes of only a couple of inches in diameter, exert a pressure of something like eight or nine hundred hundredweights on the base of each ram, and force it up, very slowly indeed, but quite irresistibly. When the girders are coming up, they generally, but not necessarily, bring up a big pontoon—large enough to carry, on its equivalent for a deck, the biggest ship afloat. The pontoon is not necessarily brought up, as we have said, for it may have been floated right away from the lift with a ship on it. In that case, if there be no second pontoon—and in Bombay there is but one—of course the girders come up, as it were, empty-handed, and looking most ignobly like a gridiron with nothing to fry upon it.

Hog Island

Description of hydraulic lift.

When full of water, the pontoon weighs twelve thousand tons, and that is not too much to be lifted with ease. When it is empty, it floats, and, in order to make it sink, large valves are opened, and down it goes in a few minutes if the girders are lowered from under it. The water comes in with such force that fish in quantities are brought in with the rush, and are of course given over to be devoured by their enemies. When the pontoon is far down, the ship to be docked is floated in over it. Then the girders are raised, and the pontoon is forced up under the vessel's bottom. Blocks are drawn in so as to fit the contour under water, and wedge her up tight; then ship and pontoon come up into the air, and she can be examined and repaired at leisure. A large steamer filled with cargo was thus raised out of the water in a few hours at Malta; a new screw was put in, and the next day she was afloat, ready to proceed on her voyage. The water is forced into the hydraulic chambers by steam-power. Two engines, of fifty horse-power each, occupy a building on shore about sixty yards from the lift. When the lift was first tried, the ship she had to lift fell foul of two of the pillars and smashed them. They remain smashed to this day, and, of course, two of the girders are consequently useless. But so great is the power of the remainder, that the damaged ones are not wanted, and a ship of any size or weight could now be lifted just as if nothing was amiss.*

Its uses.

Climate.

It has already been stated that, when first known, Bombay was a very unhealthy place, Europeans being especially liable to fever, colic, and other diseases natural to marshes; but now that the insanitary conditions have been removed, there are few places within the tropics so healthy and agreeable. The thermometer ranges, on an average, between 60° to 90°—never falling below 50°, seldom reaching 96°; and as in the evenings there is a regular westerly breeze, they are very pleasant. The death-rate in 1873 was 24·31 per 1,000. The year is divided into wet and dry seasons, or the S.W. and N.W. monsoons—this being an Arabic word to note the seasons. The

The S. W. and N. W. Monsoons.

* *Times of India.*

wet season lasts from the middle of June to the end of October. The rainfall is very heavy, sometimes exceeding 100 inches. In 1874 it was 93·56 inches.

GEOLOGY.

Rocks.

The chief rocks throughout the group of islands about Bombay are volcanic; but there are probably a greater variety of trap-rocks to be found on the island of Bombay itself than on any similar area elsewhere. The traps are interstratified by Neptunian rocks, chiefly of fresh-water origin, and covered over with marine alluvium of three or four different ages and formations mostly extremely recent. From Malabar Point to Mahalakshmi, *i.e.*, Malabar Hill, is a fine bold ridge of black basalt, nearly three miles in length and about half a mile across. Under the highest part of the ridge, the rock is tumbled about in huge pieces, many of which are detached. At Mahalakshmi the basalt becomes tabular, and soon sinks under the level of the sea, but re-appears on the eminences on the island. On the parts below the sea-level are strata abounding in organic remains. At the old castle on the south-western extremity of the little island of Versova, it is columnar. On the west side of the island facing Salsette, it is highly porphyritic, the felspar crystals embedded being nearly half an inch each way. Just round the promontory to seaward, a fine picturesque group of columns rises from high-water mark, which ring like metal when struck. At Bassein it runs into somewhat bolder cliffs, and, indeed, this basalt barrier passes into the main land, broken through only by the creek opening into Bombay harbour. From this ridge two miles eastward, the island is flat, rising at the highest to eight or ten feet above sea-level, and, before the artificial means already alluded to were carried out, was submerged at high-water.

Different descriptions of rock.

BOTANY.

Cocoanut tree.

The vegetation is rich, but not diversified. The principal product is the cocoanut (*cocos nucifera*), a fine grove of which is found at Mahim. The grove is known as Mahim wood, and is two miles long. The tree grows on open gravelly soils, where fresh

water is abundant near the surface. It is seldom found far from the sea. By the Hindu the cocoanut is held in great veneration, and is considered one of the most successful of propitiatory offerings to his gods. The respect in which the cocoanut is held is not surprising when it is remembered how many are its uses. From the tree the native draws his 'toddy,' which is not only a favorite beverage, but is also used as yeast to ferment bread. The nut is eaten as food, and from it the oil chiefly used in India is extracted. The husk of the nut is separated in a fibre, and then made into ropes, and woven into matting, &c. It is also used for stuffing mattrasses, pillows, &c. The large leaves are also made into matting, and the small ones into 'punkhas,' or fans, while the trunk itself, being hollow, is used for water-piping when dried. The palmyra is the most imposing of the palms in Bombay. It is taller and straighter than the cocoanut, and often attains an altitude of 40 to 60 feet. The date-tree is more abundant, but less conspicuous, than the palmyra, and less plentiful than the cocoanut. It is greatly injured by the incessant tappings for its toddy ; and its fruit is useless. The betelnut palm (*palma gracilis*) is a beautiful tree. It grows to the height of about 60 feet, with a tapering stem of only four or five inches in diameter at its base. It prevails along the borders of the cocoanut groves. By far the most noble-looking trees in this part of India is the banyan (*ficus Indicus*), which is held in great veneration on account of the shelter it affords, and also because it was beneath its shade that Buddha was said to meditate. Out of the branches of this tree grow other branches, which, reaching the soil, take root ; and, in this way, some of the trees have been known to cover several acres of ground. A celebrated specimen is near Broach. There are only a few banyan trees on Bombay island itself ; but they abound at Bandora, Salsette, and on the main land. There is, however, in Sewree Cemetery a very peculiar specimen of the banyan, the branchlets having the appearance of ropes, entwining themselves amongst the parent branches, and, indeed, actually tying themselves into knots.

Its various uses.

The Palmyra.

Date tree.

Betelnut palm.

The Banyan.

Zoology.

Although wild beasts had formerly their habitat in Bombay, the presence of man has had the effect of driving them to a distance. Tigers, panthers, and leopards are occasionally seen on the neighbouring islands, and, within the recollection of persons still living, have been killed on the island. They are still plentiful a few miles off on the main land, as is also the jackal. The hyæna is scarce. A large species of monkey is numerously represented. Rats abound all over, and may be seen scampering about the streets of Bombay every night. There are three or four species, of which the bandycoot is the largest, most numerous, and ugliest. The trees abound with a pretty little striped squirrel. Tigers, &c. Vermin.

Birds.—There are several birds of plumage, but few of song. The small green parrot is numerous. The king-fisher is common, as is also the grey heron. Hawks, kites, carrion-crows, and vultures are the most numerous. The raven is scarce. There are three varieties of swallows—the swift, the martin, and the house-swallow. The house-swallow does not use mud for its nest, as is the case with the European species. There are also several varieties of the wagtail; and sparrows are plenty, as are also the mina and the chatterer. Wild pigeons abound. Parrots, &c. Swallows.

Reptiles.—The island swarms with snakes of several kinds, though it is rarely that any is seen in the Fort, and then only when carried there in a load of hay, or by some other chance. Only four, however, of the thirty species found in the island, are poisonous—*viz.*, the cobra de capella, cobra manilla, the tree-snake, and the carpet-snake. The first-named (known also as the hooded snake) is the most numerous. It is sometimes seen at Kolaba, and abounds on Malabar Hill and at Parell. Though seldom seen unless looked for, they occasionally find their way into the drawing-rooms of the bungalows. The poisonous snakes are not amphibious. In length, when full-grown, they are from four to five feet. Of the other kinds of snakes, the most important is a small species of the python, or boa-constrictor, known as the rock-snake. It is found on Malabar Snakes.

Hill ten feet long. Most of the harmless snakes live in water, feeding chiefly on frogs, &c. There are also some poisonous sea-snakes, which are occasionally left by the tide dead or dying.

There are several species of lizards and frogs.

Two kinds of turtles are met with on the shores; but they are little sought after as articles of food. Six or eight varieties of sharks are caught, and their fins form a trade with China.

Insects.—The principal insects are the mosquito; the white-ant, which eats away wood; the black ant, which seizes the beautiful web of the spider it cannot spin, and lines its nest with it; and numbers of beautiful butterflies.

Indian Cotton Industry.

The Cotton Presses.

There* are at present 28 cotton pressing and ginning companies. The manufacture of cotton cloth and yarn is the most important industry in the Bombay presidency. The cotton is cleaned and spun into thread by all classes of the people, and there are weavers and dyers in every town. Within the last ten years, steam spinning and weaving mills have been introduced. The mills, with their tall chimnies, form a marked feature in the Bombay landscape.

First cotton-mill.

The first cotton-mill erected in Bombay was that of the Bombay Spinning and Weaving Company, Limited. It began with a capital of Rs. 5,00,000, divided into 250 shares of Rs. 2,000 each. The erection of the mill began in 1854, but it was not until February 1856 that it commenced working. Its working profits enabled a dividend of Rs. 600 per share to be declared to the shareholders at the end of 1858. The success of this mill stimulated capitalists to work in that direction. In 1855, the Oriental Spinning and Weaving Company was formed; and in 1857 the Throstle Mills Company, since known as the Alliance Spinning and Weaving Company, was projected. The year 1860 witnessed the establishment of four more mills on the Joint Stock principle, *viz.*, the Bombay United Spinning and Weaving Company, the Kurla Mills (now known as the New Dhurrumsey Poonjabhoy Spinning and Weaving

Erection of several other mills.

* *Moral and Material Progress of India.*

Company), the New Great Eastern Spinning and Weaving Mills, and the Royal (recently called the Fleming) Mills. In 1861, the foundation was laid of the Arkwright Mills, and of the Manockji Petit's Spinning and Weaving Company—one of the largest and most successful of cotton-mills in India. The American war, and the high price of cotton which ruled in India in consequence of the cotton famine, gave the first check to the extension of this industry in Bombay. For a time, Bombay mills not only made no profits, but their working resulted in a positive loss to those interested in them. With the conclusion of the war, and the terrible shock which it gave to Bombay, mill shares suffered considerably, in common with the general depreciation of every valuable property, except gold and silver. The fall in the price of cotton, however, gradually enabled mill-owners in Bombay to work their concerns at a profit. The earnings of the mills increased, and, with them, the dividends payable to shareholders. The result, as may be imagined, was an extension of mills, both in the island of Bombay and in the interior of the Bombay presidency. The year 1874 witnessed a sudden and extensive development of this industry, and as many as a score of new projects arose in Bombay and other parts of the presidency. Bombay capitalists have gone even beyond the limits of the presidency, and Madras, Nagpur, and Hyderabad (Deckan) have cotton-mills erected, or which are in course of erection.

Share mania.

In Bombay island itself, there are eighteen mills in actual work, and thirteen mills in course of erection or completion. There are also mills at Broach, Surat, and Ahmedabad. They employ altogether 4,500 looms, 405,000 spindles, and 10,000 hands; and turn out daily 100,000 lbs. of yarn. The weekly consumption of cotton is about 1,500 bales, being 6½ per cent. of the average cotton crop. Many cotton printers are settled in Bombay, and much of the cloth manufactured in the mills is dyed in their vicinity.

The subjoined tables contain particulars of the mills in Bombay, their dates of formation, capital, numbers of shares, numbers of spindles and looms, &c.

(1) *Alphabetical List of Mills in actual work in the Island of Bombay.*

	Names.	Date of Formation.	Capital.	Number of Spindles.	Number of Looms.	Yarn.			Secretaries, Agents, or Owners.
						Total Production.	Used in making Cloth.	Available for Sale.	
			Rs.			lbs.	lbs.	lbs.	
1.	Albert Mills Company, Limited.....	11th May 1865	8,00,000	19,000	None	4,500	None	None	Allarakhy Abhoy Shivji.
2.	Alexandra Spin. and Weav. Co., Ld.....	9th October 1868.....	9,00,000	25,032	200	5,500	3,500	1,500	
3.	Alliance Spin. and Weav. Co., Ld.....	10th January 1857	13,50,000	27,000	None	6,100	None	6,100	Tapidas Vurjdas & Co.
4.	Arkwright Mills.....	Foundation laid in 1861.	1,80,000	5,000	None	1,200	None	1,200	Purunmull Chimntram.
5.	Bombay Spin. Co.....	Erection of Mill began in 1854	5,50,000	29,000	None	5,100	None	5,100	Cowasji N. Davur.
6.	Bombay United Spin. and Weav. Co., Ld...	21st February 1860	9,00,000	21,000	399	5,300	3,300	2,000	Khatao Mukunji & Co.
7.	Colaba Spin. and Weav. Co., Ld.....	9th July 1873	9,00,000	35,000	300	5,000	None	5,000	Nursey Kessowji & Co.
8.	Fleming Spin. and Weav. Co., Ld.....	8th August 1860	18,75,000	35,300	748	8,000	6,000	2,000	Nursey Kessowji & Co.
9.	Hindustan Spin. and Weav. Co., Ld.....	27th August 1873	10,00,000	25,200	250	5,500	None	5,500	Vishram Mhowji & Co.
10.	Jevraj Balloo Spin. and Weav. Co., Ld....	28th December 1872....	10,00,000	22,500	225	6,000	None	6,000	Dwarkadas Vussunji.
11.	Manockji Petit's Spin. and Weav. Co., Ld ..	17th June 1861	25,00,000	61,000	1,000	14,000	8,000	6,000	C. & F. Dinshawji & Co.
12.	Morarji Goculdas Spin. and Weav. Co., Ld..	10th August 1871	12,00,000	33,000	345	6,000	3,000	3,000	Morarji Gokuldas.
13.	New Dhurumsey Spin. and Weav. Co., Ld..	1st August 1860	50,00,000	100,000	1,002	20,000	14,000	6,000	Merwanji Framji & Co.
14.	New Great Eastern Spin. and Weav. Co.	17th September 1860 ..	15,00,000	30,488	608	7,500	5,500	2,000	Muncherji N. Banaji.
15.	Oriental Spin. and Weav. Co., Ld.....	19th September 1855 ..	25,00,000	51,000	920	11,500	9,500	2,000	Merwanji Framji & Co.
16.	Shamji Jadowji Mills	Foundation laid in 1871.	8,00,000	25,000	None	5,000	None	5,000	Shamji Jadowji.
17.	Sunderdas Spin. and Weav. Co., Ld.....	5th February 1872	10,00,000	21,000	None	5,000	None	5,000	Moolji Jaitha & Co.
18.	Victoria Manufactturing Co., Ld.	22nd March 1860	6,00,000	13,886	None	3,250	None	3,250	C. & F. Dinshawji & Co.
			2,45,55,000	5,79,405	5,997	1,24,450	52,800	66,650	

(2) *Mills in actual work outside Bombay.*

NAMES.	Date of Formation.	Capital.	Spindles.	Looms.	YARN.			Secretaries, Agents, or Owners.
					Total Production.	Used in making Cloth.	Available for Sale.	
Ahmedabad.		Rs.			lbs.	lbs.	lbs.	
1. Ahmedabad Spin. and Weav. Co.	18th August 1858	{ Orign'l. 5,00,000 }	20,000	200	4,500	2,500	2,000	Runchorlal Chotalal.
2. Becherdas Spin. and Weav. Co.	1st November 1864	5,00,000	15,000	100	3,500	800	2,700	Hon'ble Becherdas Ambaidas.
Broach.								
3. Broach Mills Co., Ld.	10th May 1870	17,500	None	None	3,500	None	3,500	Merwanji Framji & Co.
4. Alfred Mills Co., Ld.	21st July 1873	2,50,000	7,500	None	1,500	None	1,500	Greaves, Cotton & Co.
Surat.								
5. Jaffer Ali Spin. and Weav. Co., Ld.	10th March 1861	5,00,000	15,000	100	3,500	None	3,500	
Bhownuggur.								
6. Bhownuggur Mills and Press Co.	2nd September 1871	6,00,000	12,000	None	2,500	None	2,500	Forbes & Co.
Julgaum.								
7. Khandeish Spin. and Weav. Co.	18th November 1873	7,50,000	15,000	200	2,000	500	1,500	Moolji Jaitha & Co.
Indore.								
8. Maharajah Holkar's Mills	.....	3,50,000	10,274	225	2,200	1,100	1,100	H.H. Maharajah Holkar.
Calcutta.								
9. Bengal Cotton Mills	.....	8,00,000	....	..	..	..	..	
10. Bowreah Cotton Mills	.....	18,00,000	....	..	..	..	..	
11. Cawnpoor Dunbar Cotton Mills	.....	2,50,000	....	..	..	..	..	
12. Fort Gloster Cotton Mills	.....	10,00,000	....	..	..	..	..	

(3) *New Cotton Mills in course of erection or completion at Bombay and Kurla.*

	NAMES.	Date of Formation.	Capital.	Number of Spindles.	No. of Looms.	Agents.	REMARKS.
			Rs.				
1.	Anglo-Indian Spin. and Man. Co., Ld.....	4th November 1874 ..	30,00,000	20,000	None		
2.	Colaba Land Co.'s Spin. and Weav. Mill...	1st July 1874	10,00,000	17,000	200	Remington & Co.	
3.	Coorla Spin. and Weav. Co.....	14th July 1874	8,00,000	25,000	300	A. H. Wadia & Co.	
4.	Elphinstone Spin. and Weav. Co., Ld.....	28th January 1874	8,00,000	15,000	200		
5.	Frere Spin. and Weav. Co., Ld.....	30th September 1874 ..	25,00,000	....	..	Dhurrumsey Poonjabhoy.	
6.	Khatao Mukunji Spin. and Weav. Co., Ld.	19th October 1874.....	10,00,000	30,000	300	Khatao Mukunji & Co.	
7.	Mandavi Spin. and Weav. Co., Ld.....	29th July 1874	6,00,000	15,000	None	Rahimbhoy Aladin and Co.	
8.	Mazagon Spin. and Weav. Co., Ld.....	20th August 1874	10,00,000	20,000	None	C. and F. Dinshawji & Co.	
9.	National Spin. and Weav. Co., Ld.	5th February 1874	5,00,000	17,000	None	Jehangir Hormusji & Co.	
10.	Nicol Press and Man. Co., Ld.....	25th October 1873	12,00,000	21,500	None	W. Nicol & Co.	
11.	Nursey Mills.	.....	8,00,000	19,000	200	Nursey Kessowji.	
12.	Prince of Wales' Spin. and Weav. Co. ...	14th July 1874	7,50,000	15,000	200	Gellabhoy.	
13.	Sassoon Spin. and Weav. Co.....	5th March 1874	15,00,000	50,200	750	David Sassoon & Co.	

(4) *New Cotton Mills in contemplation or course of completion Up-country.*

	Surat.						
1.	Goolam Baba Spin. and Weav. Co., Ld....	14th May 1874	6,00,000	15,000	100	Jamsetji Dossabhoy	Nearly completed.
	Nariad.						
2.	Nariad Spin. and Weav. Co., Ld.	24th October 1874.....	4,00,000	10,000	None	Javerilal Umiashankar & Co.	In course of construction.
	Sholapore.						
3.	Sholapore Spin. and Weav. Co., Ld.....	10th December 1874	5,00,000	12,000	None	Morarji Goculdas.....	Do.
	Hyderabad (Deckan).						
4	Hyderabad (Deckan) Spin. and Weav. Co., Ld.	25th February 1875 ..	7,00,000	10,000	None	W. Nicol & Co.	Do.
	Nagpore.						
5.	Central India Spin. and Weav. Co., Ld.....	5th September 1874 ..	12,50,000	20,000	500	Nusserwanji E. Tata	Do.
	Madras.						
6.	Madras Spin. and Weav. Co., Ld.....	18th August 1873	3,75,000	15,000	None	Dayal Ruttonsey	Do.
7.	Madras United Spin. and Weav. Co., Ld...	12th December 1873 ..	3,50,000	12,000	None	Moolji Jaitha & Co.	In working order.

Cave Temples.

The* *cave-temples of Kanhari* in Salsette will repay a visit. They are excavated in the face of a single hill, about five miles from Thanah. There are nearly one hundred of them. Mr. Fergusson, in his *Rock-cut Temples of India*, p. 34, pronounces them to be one of the most modern of the Buddhists, who may have taken refuge here, after being expelled from the continent, and tried to reproduced in their insular retreat the magnificence of their own Karli. Kanhari.

Fourteen and a half miles from Bombay is *Vehar*, where a magnificent system of water-works supplies the capital with drinking-water. Vehar.

Karli† is close to the G. I. P. line between Bombay and Poona. The following account of its cave is extracted from Fergusson's *Rock-cut Temples of India* :—"The great cave of Karli is, without exception, the largest and finest Chaitya cave in India, and is fortunately the best preserved. Its interior dimensions are 102 feet 3 inches in total length ; 81 feet 3 inches length of nave. Its breadth from wall to wall is 45 feet 7 inches, while the width of the nave is 25 feet 7 inches. The nave is separated from the side-aisles by fifteen columns on each side, of good design and workmanship." The date of the cave is probably the first or second century before Christ. Fergusson believes the wood-work (conjectured to be of teak) to be that of the original construction, which has defied the ravages of time for some two thousand years. It does not support the roof, though it seems to : so it bears no strain. It is inaccessible to the white-ants, and protected from rain.‡ Karli.

The *cave-temples of Ellora* have been more written about, and are better known perhaps, than those of Karli. They are situated in the north-western Ellora.

* See Heber's *Narrative of a Journey*, &c., vol. 3, p. 79.

† In travelling to Karli from Bombay, the famous Bhore Ghât, one of the most splendid engineering triumphs in the world, is passed. The incline is 15 miles long, the level of its base is some 200 feet above the sea, and of its summit 2,027 feet.

‡ See Heber's *Journal*, vol. 3, p. 112 ; and *The Hindoos* (Knight). A better acquaintance with these wonderful temples can be obtained from the following writings :—*Asiatic Researches*, vol. 6, p. 423 : paper by Sir C. Malet.—Fitzclarence's *Journal of a Route across India*, p. 193.—Seely's *Wonders of Ellora*.—Daniell's *Picturesque Voyage to India*.—Langles' *Monumens, Anciens et Modernes, de l'Inde*, en 150 planches.—*Transactions of R. A. S.*, vol. 2, p. 326.

corner of the Nizam's dominions, not far from the ancient city of Daulatabad, or Deogiri. Hamilton, in his charming *Description of India*, &c. (vol. 2, p. 148), very properly remarks that the profuse architectural details of these marvellous temples can never be done justice to without plates; and we can only here attempt to direct the reader's attention to their curious grandeur. The various excavations have been divided into Jain, Brahmanical, and Buddhist. They are situated in the face of a crescent-shaped hill, about a mile from the little rural village of Ellora. "The first view of this desolate religious city," says Mr. Erskine, "is grand and striking, but melancholy. The number and magnificence of the subterraneous temples, the extent and loftiness of some, the endless diversity of sculpture in others, the variety of curious foliage, of minute tracery, highly-wrought pillars, rich mythological designs, sacred shrines, and colossal statues, astonish, but distract the mind. From their number and diversity, it is impossible to form any idea of the whole; and the first impressions only give way to a wonder, not less natural, that such prodigious efforts of labour and skill should remain, from times certainly not barbarous, without a trace to tell us the hand by which they were designed, or the populous and powerful nation by which they were completed. The empire, whose pride they must have been, has passed away, and left not a memorial behind it. The religion, to which we owe one part of them, indeed, continues to exist; but that which called into existence the other, like the beings by whose toil it was wrought, has been swept from the land."

Goa.

Goa. The Portuguese settlement of Goa is well worth a visit. There are two cities—old Goa, the ancient seat of the Portuguese Government, built nineteen years before the arrival of Vasco de Gama (1498), with its magnificent cathedral and fine churches; and modern Goa, with its neat white rows of houses, and extensive public buildings. The cathedral of old Goa is really a very grand ecclesiastical building, worthy of any European capital. Its establishment consists of an archbishop, dean, precentor, archdeacon, ten canons, four semi-prebendaries, two quaternians, and several treasurers and assistant treasurers. The church of the palace of St. Cajetan is an exact model of St. Peter's at Rome. It belongs to the Theatins, or order of St. Cajetan. This order admitted into its ranks many Brahman converts, whose successors still, we believe, here perform Christian sacerdotal functions. Few cities in Europe can boast of a finer edifice of its kind than the Augustinian convent. Its cloisters, pillars, galleries, halls, and cells are indeed magnificent. There is a library still containing about 1,500 old and valuable books, fast going to decay. The Church of *Jesus* is a noble edifice in the form of a cross, containing the splendid shrine of St. Francis Xavier, hardly surpassed by anything of the sort in the world. It is of richly gilt and chased copper, placed within a silver enclosure, and resting upon an altar of Italian marble, profusely sculptured, with the story of the great missionary whose mortal remains lie underneath. The church of the Dominicans is also a fine building, as are the church and convent of the Carmelites, and the church and convent of the Franciscans.

Life in Goa. Goa† is perhaps the cheapest place in India. £100 a year is sufficient to support a large (European) family, and £300 a year is affluence. The Portuguese who come from Europe are called "Reinols," while the native Portuguese are known as "Castissos," and the Eurasians "Mestici." The Viceroy has a huge palace assigned him (in New Goa), and

* Burton's *Goa and the Blue Mountains.—Historical Sketch of Goa*: Cottineau de Klegnen, 1831.

† Goa is visited weekly by the steamers of the B. I. S. N. Company.

enjoys the modest income of £1,800 a year. He gives two or three balls every year, which are spoken of as being very imposing entertainments, from the richness and variety of the dresses of the people. Colonel Campbell gives an amusing account of a visit to Goa. The young *shikari* did not think very highly of the churches, statues, or pictures ; but took a deeper interest in other things, of which the learned Dr. Wilson speaks little. "During the time," he says, "we remained at Goa, we made an excursion along the coast to the neighbouring village of Seroda, inhabited by a remarkable race of women, who are celebrated throughout the western parts of India for their great beauty and unusually fair complexion. They are Hindus of the *Konkani* caste ; but differ in many respects from any other tribe. They are not allowed to marry ; nor are any men, except the priests belonging to the pagodas, of which there are several in the village, allowed to reside within its precincts. They are, however, encouraged to become mothers; and they are very particular in selecting fathers, likely, from their appearance, to perpetuate in their children the fair complexion and classical features for which they themselves are so justly celebrated."* These women are the descendants of the dancing-girls connected with the Hindu temples abolished in Portuguese territory. "The village is beautifully situated in a grove of orange, citron, and palm trees, through which the soft sea-breeze comes laden with perfume ; a beautiful salt-water lagoon, wooded to the edge, sweeps by in front of it ; and, in the back-ground, the deep-blue mountains appear to form a barrier between this enchanting spot and the remainder of the world."

Seroda.

* There is a beautiful drawing of one of these houris in Campbell's *Indian Journal*, by Noel Paton.

2.—MADRAS.

The old sea-port of *Calicut*,* once a flourishing and important city, will repay a visit. It was here that the Portuguese landed in 1498, under Vasco de Gama, after their protracted wanderings. It is the capital of that remarkable nation of Hindus, the Nairs. The Rajah of Calicut, or the Zamorin, is one of their greatest chiefs. He is by them styled the 'Tamuri Rajah.' All the males of his family are called 'Tamburans,' and all the females 'Tamburetti.' These ladies have no intercourse with their nominal husbands; but have children by the Brahmans, or Nairs of the highest social rank. They usually live with their brothers. Calicut.

Cochin has belonged successively to the Portuguese, Dutch, and British. It was finally ceded to us in 1814. It has still a number of European settlers of various nationalities, and among the natives and Eurasians there is a very considerable Christian population. The ship-building was formerly considerable. In 1821, two 24-gun ships for the Royal Navy were on the stocks. Cochin.

Following the coast, the traveller should visit the ancient pearl-fisheries of *Tuticorin*. They are mentioned by Marco Polo. Tuticorin is now an important and flourishing port. Tuticorin.

Negapatam was the capital of the Dutch possessions on the Coast of Coromandel. The old fort, the famous mint (of the gold coinage), and every vestige of its occupation by the Dutch have nearly disappeared. The old Jain or Buddhist ruin, known to sailors as the "Chinese Pagoda," is now almost the only object of interest. Negapatam

The old Danish settlement of *Tranquebar* was founded in 1616. The little fort is a curious relic of the old days of European enterprize in India. The district was purchased by the British in 1845. Tranquebar.

Pondicherry, the old capital of French India, was once the chief European settlement in India. Rennell says—"Previously to the war in 1756, Pondicherry was perhaps the finest city in India. It extended along the sea-coast about a mile and a quarter, and Pondicherry.

* Visited weekly by the B. I. S. N. Company's steamers.

was about three-quarters of a mile in breadth. Though small, its citadel was the best of its kind in India." Lord Valentia spoke of it in his travels as the handsomest town, except Calcutta, he had seen in Hindustan. The light-house exhibits its flame at an elevation of 89 feet above the level of the sea.

Madras. *Madras* is approached from vessels in the anchorage by native *masulah* boats, which consist of planks, without ribs or timbers, and merely sewed together, with twine formed of the cocoanut fibre. The light-house exposes an intermittent light at a height of 128 feet above the mean level of the sea. The duration of the flash is to that of the dark interval as 2 to 3. Mr. Robertson, the Engineer who was in 1870 appointed by Government to report upon the harbours of India, recommended a breakwater* as the only practicable improvement of the Madras Roads; but since then a close harbour, formed of two curved breakwaters, has been strongly urged upon the attention of Government. The cost is estimated at £565,000.

Sights. The Fort, the public buildings, and merchants' offices on the beach, Government House, the Cathedral, St. George's Church, the Mint, and the Club are the only sights of interest. The fruits of Madras are numerous and delicious; and the visitor will remember the countless and exquisite curries long after he has forgotten the discomforts of the landing, and the architectural poverty of the city. The favorite resort in the evening is the beach; and the Mount Road, leading from the fort to the cantonment of St. Thomas, being shaded on either side by noble trees, affords an agreeable drive.

Trichinopoly. The fort of *Trichinopoly* is built upon a rock of sienite that rises some 600 feet above the surrounding alluvial plain. The walls are from twenty to thirty feet in height, and upwards of two miles in circumference. The temple on the rock is a very sacred and interesting shrine. The place is famed for its jewellery, cutlery, and saddlery.

* In 1843, a French engineer proposed to construct a suspension bridge across the surf; but the plan was rejected as unfeasible.

3.—BENGAL.

The Shrine of Jagannath.

The great shrine of Jagannath at *Puri* is thus described by Dr. W. W. Hunter in his great work on Orissa :—"The sacred enclosure is nearly in the form of a square, protected from profane eyes by a massive stone wall, 20 feet high by 652 long and 630 broad. Within it rise about 120 temples, dedicated to the various forms in which the Hindu mind has imagined its God. In the list I count no fewer than thirteen temples to Siva, besides several to his queen, the great rivals of Vishnu. The nature worship of primitive times is represented, even in this most complex development of modern superstition, by a temple to the sun. But the great pagoda is one dedicated to Jagannath. Its conical tower rises like an elaborately-carved sugar-loaf, 192 feet high, black with time, and surmounted by the mystic wheel and flag of Vishnu. Outside the principal entrance, or Lion Gate, in the square where the pilgrims throng, is an exquisite monolithic pillar, which stood for centuries before the temple of the sun, twenty miles up the coast. The temple of Jagannath consists, like all the larger shrines in Orissa, of four chambers, opening one into the other. The first is the Hall of Offerings, where the bulkier oblations are made, only a small quantity of choice food being admitted into the inner shrine. The second is the Pillared Hall, for the musicians and dancing-girls. The third is the Hall of Audience, in which the pilgrims assemble to gaze upon the god. The fourth is the sanctuary itself, surmounted by the lofty conical tower. There sits Jagannath, with his brother, Balabhadra, and his sister, Subhadra, in jewelled state. The images are rude logs, coarsely fashioned into the form of the human bust from the waist up. On certain festivals, the priests fasten golden hands to the short stumps which project from the shoulders of Jagannath."

The revenue and establishment

The* income of this temple, from offerings, lands, and religious houses, amounts to nearly £70,000 a year. More or less directly connected with the service of the temple, are some twenty thousand men,

* *Calcutta Review*, vol. 10, p. 255.

women, and children. At the head is the great Rajah-Priest of Khurdha, the representative of the old royal house of Orissa, who has the privilege of sweeping the house of Lord Jagan. Under him are decorators of the idols, strewers of flowers, priests of the wardrobe, bakers, cooks, guards, musicians, prostitutes, torch-bearers, grooms, elephant-keepers, bathers, canons, and clerks. There are twenty-four high festivals through the year, of which the Car Festival is the chief. It takes place in June or July. From the remotest provinces of India, pilgrims come pouring ceaselessly into Puri for days before the celebration. The temple cooks make arrangements for feeding ninety thousand mouths. The entire city and district is in a ferment of expectation and enthusiasm. A huge car is erected on sixteen wheels, seven feet in diameter. In this Lord Jagan is taken to his country-house, a distance of less than a mile. The brother and sister of the god have separate cars. "When the sacred images are at length brought forth and placed upon their chariots, thousands fall on their knees, and bow their foreheads to the dust. The vast multitude shouts with one throat; and, surging backward and forward, drags the wheeled edifices down the broad street towards the country-house. Music strikes up before and behind, drums beat, cymbals clash, the priests harangue from the cars, or shout a sort of fescennine medley, enlivened with broad allusions and coarse gestures, which are received with roars of laughter by the crowd. And so the dense mass struggles forward by convulsive jerks, tugging and sweating, shouting and jumping, singing and praying, and swearing: but the wheels sink deep into the sand, and the journey takes several days. After hours of severe toil and wild excitement in the July tropical sun, a reaction necessarily follows. The zeal of the pilgrims flag before the garden-house is reached; and the cars, deserted by the devotees, are dragged along by the professional pullers, with deep-drawn grunts and groans." In the wild delirium of religious excitement, it is supposed that diseased persons, in violation of the first principles of Vishnu-ism, have flung themselves under the wheels of the car; but that this is a common occurrence, or forms

The Car Festival.

Self-immolation.

a characteristic feature of the festival, is a Christian invention.

Calcutta. The navigation of the tortuous Hughli has long been, and is still, a growing difficulty. At its mouth, shifting sand-banks render the assistance of trained pilots, who are always studying the channel, absolutely necessary; and often their special acquaintance with the river, and its vagaries, is insufficient to prevent ships being drifted by the currents on to the shallows. But in proportion as the approach to the great commercial city of India is difficult, is its defence easy; and at present there is nothing to prevent an enemy's fleet from sailing up the river to the range of Fort William, and destroying the shipping, save the difficulty of navigating the channel. It is now proposed, however, to erect a fort at Chinghri-Khal, forty miles above the entrance of the river at Sagar, where the passage narrows to a width of half a mile; and another fifteen miles higher up, at Falta. Colonel Jervois has also deemed it advisable to establish five distinct systems of torpedoes at different points, with gunboats to aid in the defence. The cost of the proposed works is estimated at £160,000.

Defences.

At some distance below Calcutta, the traveller passes the Botanical Gardens on the left, and the residence of the ex-King of Oudh on the right. Fort William* stands on the banks of the river, about a quarter of a mile below the town, and, although not built to withstand modern guns of heavy calibre, is an excellent citadel in the event of an insurrection. It is superior in strength and regularity to any fortress in India; and is garrisoned by European troops. The East India Company spent two millions sterling on this fortress. Between the fort and the city is a wide esplanade, where troops are exercised, where the inhabitants enjoy the fresh breezes of evening on horseback or in carriages, and where the games of cricket, polo, and golf are played. Bounding the east side of this open plain is a noble line of dwelling-houses—Chowringhee, chiefly occupied by rich merchants and members of the

The Fort.

The Esplanade.

Chowringhee.

* Fort William has the unusual fault of being built on too extensive a scale. To defend the works against a regularly-organised force would require a garrison of 10,000 men.

Supreme Government, with the palace of the Bishop, situated opposite to the cathedral, which stands on the plain. At some distance beyond the southern limits of this esplanade is Belvidere, the residence of the Lieutenant-Governor of the Lower Provinces of Bengal; while facing the northern side is the magnificent palace of the Viceroy. A few of the public buildings and merchants' warehouses, and the Asiatic museum, are worth visiting; but Calcutta is not a city that offers a succession of interesting 'sights' to the visitor. The whole city, with its shipping and traffic, and curious inhabitants of various races, forms one noble spectacle. Lying alongside the road, or course, that divides the plain from the river, are majestic ships from all parts of the world, laden with the produce of many countries; while the stream beyond swarms with curious native craft of every description, from the great corn boat dawdling up-country on the tide, to the lively 'dandy' glancing across the water with its naked crew. The crowds that fill the streets are no less heterogeneous. The sleek, black Bengali, with uncovered head, clothed in the most faultless white linen, is jostled by the fair but dirty Povindah merchant of far-away Cabul, whose hair escapes from a high-peaked turban to fall in long tresses over his shoulders, and whose loose and filthy tunic conceals weapons that have flashed in battle beyond the Bolan or Khyber Passes. Strings of rude bamboo-carts, drawn by slow oxen, impede the progress of well-appointed broughams bearing rich merchants to their counting-houses; and the splendidly-equipped scarlet orderlies of the Viceroy's body-guard are seen side by side with the tawdry and ill-mounted ruffians who hang on the skirts of some petty native despot. Everywhere the completeness, polish, and brilliancy of Europe, are seen contrasted with the rudeness, squalor, and tawdry finery of Asia. There is no compromise; the Europeans have not become Asiatic, nor the Asiatics European.

Belvidere

Government House

The whole city a noble spectacle.

Benares, the holy city of the Hindus, rises in a splendid confusion of palaces and temples from the left bank of the Ganges. Its narrow streets are crowded with pilgrims and priests, hastening with

Benares.

their offerings and garlands to the innumerable shrines; or descending to those healing waters* that have kindled in their ancestors for all ages the most solemn and awful feelings of which humanity is capable. And, indeed, the Ganges is no common river; for from its shores—a temple not made with hands—the cry of an innumerable company of human beings has ascended to heaven during all recorded time. Hundreds of generations have knelt on its sands in the attitude of devotion; armies, whose tumult and trampling are silenced for ever, have prayed to it for deliverance or victory; nations that have quite passed away, leaving only a name behind, have bathed in its baptismal waters, and carried its priceless treasure to mighty cities that are now forgotten and buried under the tangled vegetation of remote jungles; while mothers not to be comforted, pious children, and heart-broken fathers have committed, from time immemorial, to its Stygian waves the ashes of those they loved so well. Nor is this sanctity a memorial merely of an outworn creed, a relic of a byegone superstition:—no, assuredly; for to-day, as a thousand years ago, are devout pilgrims thronging from every part of India to its shores, and the dead and dying are being hurried to the sacred burning-ghâts with a zeal and earnestness that have suffered no abatement.—Of this solemn Ganges, then, Benares is the metropolis. There, on the threshold of a thousand temples, do her worshippers offer up their most acceptable petitions; there, as from some great haven, do her children set out on the dread journey to their long home.† The place is indeed holy ground; and as we approach it, belong to whatever creed we may,

The Ganges.

The city.

* "To the king of Heaven spake the king of Hell—
'Thy writing I well can read;
I know thou hast doomed these souls to pain
For many a wicked deed—

'Yet upon this band I may lay no hand;
They are passed beyond my sway:
For the Ganges wave, that is strong to save,
Hath washed their sins away.'"—

Translation of a Hindi Sloka.

† The writer has here ventured to reproduce what he has published elsewhere.

it is impossible to divest ourselves of certain feelings of reverence and awe.

Where every spot is covered with buildings of so much interest, or such great antiquity, it is embarrassing to single out any for special mention. The visitor should go slowly through the narrow and tortuous streets on an elephant, where he will observe everything without being disturbed by the bustle of the crowd. High above him he will see, wherever he goes, the great mosque of Aurangzib placed there to annoy and humiliate the Hindus; and, should he be abroad early in the morning or late in the evening, he will hear the voice of the Muezzin floating above the temples to Vishnu and Siva, fraught with the dogma That there is no god, but God; and that Mahomed is his Prophet. The ancient Hindu observatory, the Golden Temple, and the Nepal Temple should be visited. At some distance from the city, in the European quarter, will be seen a beautiful college, where Mr. Griffith, the eminent Sanskrit scholar, and translator of the Ramayana, presides over the education of several hundred native youths. A few miles out of Benares is the famous Buddhist tope of Saranath.*

Mosque of Aurangzib.

Mr. Griffith's College.

Saranath.

Cawnpore. *Cawnpore* will be visited, as being the scene of the most terrible episode of the Great Rebellion. The place of massacre is pointed out near the river; and the well into which the victims were thrown is covered by a beautiful marble figure representing an angel, whose appearance, in the true spirit of Christianity, breathes forgiveness and peace. Around the monument is one of the most beautiful gardens in India.

Lucknow. The great Mahomedan city of Lucknow will recall the story of the Residency, and the glorious relief by Sir Colin Campbell. It is built on the river Gumti; and with its half-Italian, half-oriental palaces, and exquisite gardens, presents a gay and attractive appearance. The ancient capital of Oudh is about 79 miles east from Lucknow. It is now a mass of ruins, but was once one of the greatest cities of Hindustan. It is still one of the holy places; and its

Oudh, the old capital.

* Mr. Sherring's work on Benares should be studied by the visitor.

crumbling temples are yearly visited by thousands of pilgrims.

Agra.

*Agra** is primarily the city of the *Taj Mahal*, that "Dream in Marble" which for its exquisite symmetry and grace, and the marvellous richness and beauty of its materials, is not equalled by any structure in the world. It is almost needless to say that it is the tomb of Nur Jehan, raised by the emperor Shah Jehan as a tribute of love and admiration. The fort with its marble palaces, inlaid, like the Taj, with onyx, jasper, cornelian, carbuncle, malachite, and lapis lazuli; and its "pearl of mosques," the spotless Moti Masjd, is intensely interesting. About nineteen miles from Agra is Fattehpur Sikri, the mosques, palace, and shrines of which will well repay a visit.

Fattehpur Sikri.

Delhi.

Delhi is still the grandest city of Upper India, as it is one of the oldest, most important, and most interesting of all Asia. It is situated on a spot which would seem to have been designed by nature for a great metropolis, since it has been the site of five or six successive capitals. Its importance as a modern city, though unaccountably overlooked by Government, must one day be recognised; for it now forms the terminus of three railways, branching out, respectively, into the North-West, Rajputana, and the Panjab. Its walls are washed by one of the sacred rivers of the Hindus; it is consecrated to the Musalmans by the grandest recollections, and the presence of the most magnificent place of Mahomedan worship in the world; and it is dear to us as the scene of a glorious triumph, hallowed by the blood of heroes, and ever memorable for its momentous consequences. To the archæologist, to the historian, to the soldier, to the architect, and to every loyal Englishman, Delhi is a city of the most supreme interest. Her ruins stretching for miles along the banks of the Jumna, her noble fort and splendid palace, her stupendous mosque, her picturesque streets filled with ever-changing groups of many races, her battered walls and battle-fields, and, above all, her tombs, have justified the title of 'the Rome of Asia.' In whatever aspect

The Rome of Asia.

* Every visitor of Agra and Delhi should obtain copies of the excellent guide-books written by Mr. Keene, the Judge of Agra.

we regard her—whether as an imperial capital, a seat of learning, an emporium of commerce, or a military station—we find her, by association and situation, stand foremost in India. In* the face of such considerations, and their great influence on the oriental mind, Delhi has been bandied about from one local Government to another, and is now a provincial town, under a Lieutenant-Governor residing at a shabby, ruinous old place amid the sands of the Ravi. We have said enough to indicate the objects of greatest interest in Delhi ; we may add, however, that the museum, the Jain temples, the mosque of Raushan-ud-Daulah, the column of Asoka, the old fort, Humayun's tomb, the Kutb minar, the old observatory, and the cloth and jewel shops should engage the attention of the visitor. While visiting these places, he will necessarily be attracted to many others worth seeing. The grand desolation covered with ruins between Delhi and the Kutb would take weeks to explore ; and, indeed, comparatively little is yet known about these countless old buildings.

Alwar. From Delhi, the visitor may plunge into Rajputana by the State railway. The little state of *Alwar* on the line is worth a visit. The two palaces are extremely beautiful ; the library, armoury, and jewel-house are interesting ; and the solid silver table, and other articles of eastern magnificence, especially the Arab and elephant stables, are very curious.

Jaipur. *Jaipur* is one of the fairest cities in India. It is built with remarkable regularity. The houses are of stone, often three and four storeys high, and faced with a fine stucco, which rivals the lustre of marble. Many of the façades are decorated with paintings in fresco ; and porticoes, sculptures, and other works of marble are seen on all sides. The most striking feature of the city, however, is the projecting stone balconies, enclosed with wrought lattices of the same material, or with screens of stone painted to resemble lattice-work, which embellish the fronts of the houses, and produce an agreeably light and picturesque effect.

* The absurdity has now reached its climax in a serious proposal made to merge the small but eminently successful Government College at Delhi, in one that has proved a conspicuous failure in an obscure town of the Panjab.

The buildings of the palace, with its court-yards, its triple succession of gardens, terrace below terrace, and its noble sheets of water, occupy nearly an entire quarter of the city. Besides the public and regal apartments, the palace contains within its precincts a mint, an observatory, a great stud of elephants, and a magnificent stable of horses. Some of the temples, though modern, are in the purest style of Hindu architecture, and on the grandest scale.

*Amritsar** is the holy city of the Sikhs. It derives its name (Amrita Saras, 'the fountain of nectar') from a basin of water of about thirteen paces square, in the centre of which stands a temple dedicated to Guru Govind Sing. In this sacred place is lodged, under a silken canopy, the Granth, or scripture of the Sikhs; and some 500 or 600 akalies or priests, supported from the sacred revenues, perform the sacerdotal rites. The city is a great emporium of commerce. Some of its merchants trade with the remote cities of Central Asia. Amritsar.

* Hamilton's *Gazetteer*.

4.—BRITISH BURMAH.

British Burmah. The province of British Burmah forms the eastern sea-board of the Bay of Bengal, and extends from the district of Chittagong to the Pak-Chan river, which debouches at the narrowest part of the Isthmus

Divisions. of Malacca. It consists of three great divisions—Arracan, Tenasserim, and Pegu. The first two are long contracted strips of land, bounded on the east by mountain ranges of moderate elevation, which separate them—Arracan, from the valley of the Irrawadi, and Tenasserim, from the kingdom of Siam. Pegu contains the delta of the Irrawadi, and is separated from Upper or Independent Burmah by an arbitrary line drawn at 19° 29′ north latitude. The area of

Extent and population. British Burmah amounts to 81,706 square miles, and its population to 2,295,718 souls.

The Irrawadi. RIVERS.—The great river of Burmah is the Irrawadi. It rises in the unexplored mass of snow-clad mountains, which constitute the eastern prolongation of the Himalayas, lying about the 28th parallel

Length. of north latitude. The direct length of the Irrawadi is estimated at 1,000 miles. It enters the sea by a large number of mouths, which split up the delta into innumerable islands, all possessing the highest fertility, and lying buried under the densest tropical vegetation. The Irrawadi is said to discharge a

The Salween and Sittang. larger volume of water than the Ganges. The Salween from Western Yunan, and the Sittang from Independent or Upper Burmah, also fall into the Gulf of Martaban.

Rangoon. TOWNS.—The capital of the province is Rangoon, a large and flourishing seaport, which stands on the Rangoon river—the most easterly mouth of the Irrawadi—20 miles from the sea. The other chief towns—also seaports—are Bassein, situated on

Bassein, Akyab, &c. the most westerly mouth of the Irrawadi; Akyab, in Arracan; Moulmein, Mergui, and Tavoy, in Tenasserim.

Troops at Rangoon. MILITARY STATIONS.—*Rangoon* is occupied by a regiment of European infantry (which sends 112 men to protect the penal settlement of Port Blair, in the Andaman Islands), two batteries garrison artillery, one regiment native infantry, one company sappers and

miners. *Thayetmyo*, on the Irrawadi, ten miles below the frontier, has a garrison consisting of Right Wing European infantry regiment, one battery field-artillery, and one regiment native infantry. *Tonghu*, on the Sittang, forty miles below the frontier, is garrisoned by Left Wing European infantry regiment, one battery artillery, mountain-guns drawn by ponies, and one regiment native infantry. Detachments of native infantry are also stationed at Shwe-Gyeen (on the Sittang), Moulmein, the Andamans, and Nicobars. The native regiments belong to the Madras establishment, and the province is under the military control of the Madras Commander-in-Chief.

Troops at Thayetmyo

At Tonghu.

At other places.

ADMINISTRATION.—British Burmah is administered by a Chief Commissioner, who owes his appointment to the Viceroy. The civil servants belong to the Bengal Civil Service. Burmah is the most flourishing part of the British eastern possessions. It not only pays its own way, but remits annually to the central Government about half-a-million sterling. Trade has enormously increased of late years. New roads, canals, &c., are being made. A railway to Prome on the Irrawadi, forty miles below the frontier, has been already commenced. There is telegraphic communication with all the military stations and chief trading towns, and the line is extended on to Mandalay in Upper Burmah; but its working in the Golden City is very uncertain.

Value of British Burmah.

Railway.

Telegraph.

CLIMATE.—The unfavorable ideas which prevail (among the uninitiated) regarding the climate of Burmah, are very erroneous. They are doubtless due primarily to the terrible losses our troops sustained by sickness during our first campaign in the Irrawadi Valley, when the military authorities showed the utmost negligence in caring for the health of the men by providing either proper shelter or good food. On the sea-coast the climate is very damp, but it is much drier inland. There is a very pleasant cold weather at Thayetmyo and Tonghu. The health of the European troops in Burmah at the present day is good, and contrasts favorably with some of the best (plain) stations in India. The up-country stations are the healthiest.

Favorab climate.

STEAM COMMUNICATION.—*Ocean*—Steamers ply between Rangoon and Calcutta, calling at Akyab weekly, and between Rangoon and Madras fortnightly. A small steamer maintains weekly communication between Rangoon and Penang, calling at intermediate sea-ports. *Inland*—There is weekly communication with Mandalay, and monthly with Bhamo, the farthest navigable point on the Irrawadi. The trip up to Bhamo is an exceedingly pleasant one, occupying, there and back from Rangoon, about six weeks. It costs Rs. 150, with Rs. 4 a day table-money. Beer, &c., extra.

WARS.—There have been two wars between the conquerors of India and the Burman empire. The

Begun 1824.

first was commenced in March 1824, and concluded in February 1826 by a treaty made at Yandabo, when the British army was within forty miles of Ava. On

Cession of Arracan & Tenasserim

this occasion the Burmans ceded Arracan and Tenasserim. The second war commenced in January 1852, and, though all warlike operations came to an end in a few months, peace was not proclaimed till June 1853. No regular treaty was signed, the king refusing to cede any territory. The Governor-General (Lord

Annexation of Pegu.

Dalhousie) annexed Pegu by proclamation in December 1852.

INDEPENDENT BURMAH.—A few words on Independent or Upper Burmah may not be out of place

Boundaries

here. It is bounded as follows :—West by British territory ; south by Pegu, Siam, and Laos ; east by Anam and China ; north by the unexplored Himalayas. Its area is estimated at 42,000 square miles, and

Statistics.

its population at 3,000,000 souls. The capital is Mandalay, a city of wood, built by the present king, who succeeded to the throne in February 1853. Its population is computed at 80,000 souls. There are a few Europeans, including, of course, the ubiquitous Scotchman, settled there in trade. The ruins of the

Ava and Ameerapoora.

two previous capitals, Ava and Ameerapoora, may be seen ten and five miles respectively from the present capital. The King of Burmah has no regular stand-

Burman troops.

ing army. The few troops he maintains at Mandalay are miserably armed, with the exception of the inner palace-guard, which is provided with Enfield rifles. The nominal commander-in-chief of the Burman army

is a Frenchman named DeFacieu, whose sole duty it is to draw his pay (occasional), and to practice the sage precept *quieta non movere*. The ruins of Pagan, one of the old capitals, situated on the Irrawadi, about midway between the British frontier and Mandalay, will well repay a visit. There are three magnificent temples maintained in excellent repair. Our limits will not allow us entering into any description of them; but in the recollection of Ananda, Thapinyu, and Gaudapalen the present writer realises the force of Keats' well-known line—"A thing of beauty is a joy for ever." Pagan.

INDIAN COINAGE.

Silver coins.

The principal coins are the rupee, the eight-anna piece, the four-anna piece, and the two-anna piece—all silver; and the half-anna and quarter-anna in copper. There are also notes from Rs. 5 upwards. Silver is the legally constituted medium of exchange in all money transactions throughout the British Indian possessions. Gold coin was intended to be a legal tender, at a fixed value of Rs. 16 for the gold-mohur of Calcutta, and Rs. 15 for the gold rupee of Madras and Bombay; but it is not demandable in payment, and is left to find its current value in the market. The gold-mohur is seldom seen. The English sovereign has been made a legal tender for Rs. 10. The following table will assist the tourist :—

Gold coins.

			Value Sterling.		
		1 pie ..... £	0	0	0¼
3 pie	=	1 paisa or ¼ anna	0	0	0¾
12 „	=	1 anna	0	0	1½
16 annas	=	1 rupee	0	2	0
15 rupees	=	1 gold rupee	1	10	0
16 „	=	1 gold-mohur	1	12	0
1,00,000 „	=	1 lakh	10,000	0	0
100 lakhs	=	1 crore	1,000,000	0	0

Cowries.

Cowries (*cypræa moneta*) are used in some parts of India for small change; their value varies with the locality; from 200 to 400 = one anna. The native states have their own coins. The rupee weighs 180 grains troy, or one tola, and consists of 11 parts silver and 1 of alloy.

CHAPTER VIII.

SANITARIA.

WESTERN INDIA.

The principal hill-resorts or sanitaria in Western India, more especially those readily available to the residents of Bombay and Poona, are—on the Ghâts, or Syhadri Range, Mahableshwar with Panchguni, Khandalla with Lanauli, and Matheran: in the Deckan, Singarh, Purundhur, Punalla near Colapur, and Nasik, just beyond the Thul Ghât ascent on the north-east line of the G. I. P. Railway: in the northern Konkan is Tunghar Hill: thirty miles north-east of Baroda is the once-fortified hill of Powagarh: and, far away to the north beyond Deesa, is the famed Mount Aboo, the southernmost point of the Aravalli Range: in the southern Konkan is the now-neglected but salubrious Dapuli; in the extreme south is the hill near the port of Carwar—a very fine site. At several points on the coast, from Balacherri on the Gulf of Kutch and Gogo on the Gulf of Cambay in the north, to Mangalore and Honore (at the mouth of the Gairsappa, leading to the celebrated falls) on the south, there are several pleasant coast stations where the unfailing south-western sea-breeze from March and June mitigate the severe heat of the season.* As there are no hills

On the Ghâts.

In the Deckan.

In Northern Konkan.

Mount Aboo.

In Southern Konkan.

Sea-coast sanitaria.

* In the opening chapter of the 'Bombay Administration Report' for 1872-73, is a very good sketch of the physical geography of the presidency—including an appropriate extract from Mr. Blandford's contribution to the Geological Survey of India. It is to be regretted, however, that the multifarious appendices of that bulky volume do not contain any compendious statistics of the temperatures, altitudes, and rainfalls of the various hill-sites in Western India. There is a list of the rainfall for two years (1871-72) at most of the places where civil hospitals exist; but only in one or two instances do these include the hill-stations, and the figures are usually distrusted by scientific men. There are two pages filled with excruciatingly detailed figures of the values of the 'principal meteorological elements in Bombay island,' but this only refers to the extreme western and sea-encircled point of the whole presidency.

No hill-resorts in Guzerat.

in Guzerat (except the scarcely accessible Powagarh), it is difficult to conceive how the European residents in that province could get through the hot months, were it not for occasional resort to the sea-shore at Balsar, Domus and Vaux's Tomb (near Surat, north and south of the Tapti's mouth),

Tithul.

and Tithul, where there is a fine expanse of sandy beach. To this place European troops used to be sent from Ahmedabad and Deesa in the hot weather, and barracks were partially built for the purpose. Why this eminently salutary practice has been abandoned is conceivable only to departmental authorities.

Of all these several salubrious retreats, where the overworked Bombay merchant or lawyer, the jaded official from Poona or elsewhere, may refresh their

Mahableshwar.

spirits and recruit their frames, Mahableshwar is

Matheran.

the largest, highest, and socially most important. Matheran is the best known and most popular, being easily accessible. Though not 30 miles as the crow flies, east by north, from Bombay, the only route in regular use is by means of the G. I. P. Railway, 53 miles to Narel, thence, on pony or by palki, seven or eight miles up a winding and mostly wooded bridle-road to the somewhat irregular summit, the height of which varies from 2,000 to 2,300 feet. From the various "points"

Scenery around.

on different sides of the hill, ever-charming views are obtained of the Konkan around and beneath, of the rugged ghâts on the east, of rocky coast scenery on the south-west of Bombay, then the city and its harbour, with the adjacent hills of Salsette to the north-west. The hill itself is profusely wooded,

Description of the hill.

though the careful efforts of the Superintendent are directed to keep down the injurious growth of brushwood. Under the leafy screen of many of the rides, the Anglo-Indian exile (if not a botanist) might, for a few moments, dream that he were cantering through a Devonshire lane, or sauntering on the banks of Bruar Water—after Burns' "Humble Petition" had clothed those banks with umbrageous shelter. As this sanitarium is so readily accessible, and we have told the visitor how to get there, it would be superfluous here to indulge in any description of the verdant hill and

its delights, though every season some refreshed and rejoicing visitor breaks forth in jubilant record of benefits received and pleasure enjoyed. We quote one or two of such passages :—

"So let us leave grand but lovely Toongar, splendid but costly Mahableshwar, and content ourselves—nay, revel in the 'elegant enjoyments' of readily accessible Matheran. But what does that phrase stand for? . . . That phrase was coined—if such term is admissible—in a mint of very rustic fashion and quaint architecture, one rising up in embowered vale of deepest forest glade, like the Forge to which Schiller sends the luckless page. . . . . .

"The tonjon is carried up the seven miles from Narel to the top of the hill by an ill-assorted team of twelve coolies of different heights. When all are aboard, and your luggage piled on the heads of the dark Strephons, Phillises, and Chloes who cluster round, you set off in a canter, while the bearers take up their burthen with many grunts. The ascent is one of the most perfect pleasures I know, for as the road winds and doubles up the broad breast of the hills, there is gradually opened out a succession of most varied and beautiful pictures, from where the sun-tipped, tree-crested ridges and the deep, thickly-wooded ravines full of shadow, slope down to the level stretches of green, where the waving rice laughs and dimples to the caressing of the wind, to the last highest gradient of the roads, where, before turning into the shadow of Matheran proper, you look over your shoulder over a wide panorama of country, where the shadows of the clouds that sail over it and the shapes of the hills are projected by the sloping sun as truly and clearly as the shadow of the gnomon of a dial, where rivers and water-courses in lavish profusion of silver glitter in wide curves, and where the bristling spines and sinuous backs of mounds at whose sides you have respectfully gazed from the plain, thinking them mountain high and lifted up—are shown stretched out below you as if you were gazing from a mighty elephant on recumbent camels, and you feel the delight of wide out-look that, according to Mr. Leslie Stephen, is peculiar to the Englishmen, and the personage in black who led the way up an 'exceeding high mountain,' who looked over Lincoln, and who unroofed Madrid. When all is done I confess it is only a poor 2,500 feet,—little more than a fourth of the heights to which our readers are accustomed, but since we find there coolth and freshness, greenness and health, I pray you mock not our Matheran Hill."

Its superior charms

Lest this high appreciation of Matheran should be deemed due to mere local taste and familiarity, it may be mentioned that there are many men from 'the other side of India' familiar with the charms of Nynee Tal and the bolder beauties of Mussuri, who have pronounced Matheran to be nearer paradise than those. The hill has been fortunate in its historian. Dr. J. Young Smith, of the Bombay Medical Service, an assiduous naturalist, who has lived much at Matheran, has written a monograph on it, in which all that is of special interest in the botany and natural history of the hill, and in the story of its discovery (in 1850) and settlement, is easily and

Hotels.

pleasantly told.* There are four hotels at Matheran, at which, except sometimes for a very few days at 'the height of the season' in the closing days of May, accommodation can readily be obtained. There are bungalows on the hill, all more or less furnished, where, by dint of goodly bundles of household stuff taken up by visitors themselves, families may reside for weeks together in comfort. On one of the highest sites stands the neat pleasant church built in 1859-62. Near it is the bungalow of the Superintendent, whose duty it is to devote body and mind to the welfare of visitors, and the conservancy of the hill. His office on the main road, which is also cutcherry, treasury, dispensary, library, and news-room—post office and telegraph station being in the same building—is the centre of such public life as Matheran sustains. The present incumbent is Dr. W. Niven, who in November 1874 succeeded Dr. D. Simpson, which latter gentleman, during a three years' tenure of the post, did much to improve the roads and walks on the hill. To the Superintendent the visitor must apply in all difficulties, and to him must he confide all his troubles. We cannot leave him in better hands.

The church.

The Superintendent.

To those who know anything of Matheran, the sanitarium of Mahableshwar may be described as very similar to it, but higher, broader, and superior in every way. The trees are larger; the roads are longer and wider; the air is finer—or seems so—because drier and more rarified; the houses are more numerous and better provided; while, in the two institutions of chimnies and carriages, Mahableshwar proclaims its pre-eminence over simpler and humbler Matheran in offering a more thorough change of climate for the European constitution, and more of the social amenities. The chimnies are, indeed, only used from November to February, when few visitors are on the hill; and the carriages abound most in scorching April and May, when the Government of Bombay, and most heads of departments, strive to reconcile business and pleasure in this "Capua" of Western India. It was the warrior-

Mahableshwar.

* *Matheran: Its People, Plants, and Animals.* By J. Y. Smith, M.D., Edinburgh: *Maclachlan and Stewart*, 1871.

statesman, Sir John Malcolm, who may be said to have established this charming mountain-retreat. The "station" was long known as Malcolm Peith, and it is only of late years that the native designation Mahableshwar has resumed its ancient right. This name is given to a shrine of Mahadeo in the village or bazar; but, by some process not easily intelligible, the name has been transferred or extended to the large temple at Mahableshwara, situated at the sources of the Krishna—about five miles north-west from the centre of the European residences. This is a curious place, and one where those who know a little of the mythology and legendary ritual of Hinduism may study the subject at their leisure. The visitor will be assured that seven sacred rivers, of which the Krishna is only first, issue from this temple, and will be shown the ducts through which the several waters enter. At ordinary times, only the five rivers which have some pretence to a local origin are in flow; these are the Krishna, Yenna, Koyana, Savitri, and Gayatri. The latter is entirely mythical, unless it be a small affluent of the Savitri, which has no physical right to flow eastward, as it is the stream which becomes the Bankot river flowing through the Konkan to the western sea, and the natural approach to Mahableshwar from that side. The Yenna and Koyana are tributaries of the Krishna, which river itself is sacred from Puranic times, though not in the golden age of the Mahabharata. With visitors of the present day, any religious regard due to this mountain shrine and the scenes around, will be derived rather from such healthy natural impulses as are indicated in the following passage from Mrs. Postans's work (1838)—a lively observant lady, to whose facile pen Western India is much indebted:—

Established by Malcolm.

The Temple.

Curiosities of the Temple.

"Few scenes are more lovely than the beautiful valley of the Krishna, as seen from the open temples of Mahablesvara. The smooth and brightly-gleaming waters, like a silvery thread, wind their quiet way between the richly-wooded hills, which form a vista of fertile shelter to the grassy banks; while the herds, feeding peacefully beside the sacred river, complete the scene, and afford a glimpse of pastoral beauty, the more fair and sweet, perhaps, as contrasted with the sublime mountain solitudes of the immediate neighbourhood."*

* Quoted from a paper by Rao Sahib Vishvanath N. Mandlik in No. 28, vol. ix., *Bombay Asiatic Society's Journal* (issued 1872), wherein will be found a full and interesting account of the shrine, its history

These milder beauties of Mahableshwar characterise the views looking eastward. It is on the west, south, and north that the sublime mountain scenery rises to delight the eye and refresh the spirit of those who have long dwelt in the low island of Bombay, on the level plains of Guzerat, or amongst the arid regions of the Deckan. The finest view is from a point about three miles distant, which, it might be thought had, perhaps, in the weakness of home-sickness been named Arthur's Seat: but the name is really after Mr. Arthur Malet. Thence the rugged peaks and precipitous crags of the ghâts are seen in all their variety of colour and form. Perhaps no better general description of the scenery viewed from and around this now far-famed hill-resort, could be written than that already given by Colonel Meadows Taylor in his "Maharatta Tale" of *Tara*. His chapter 69 thus opens:—

Arthur's Seat.

Meadows Taylor on the scenery.

"Magnificent as is the scenery of the Western Ghâts of India throughout their range, it is nowhere, perhaps, more strikingly beautiful than in the neighbourhood of the great isolated plateau which, rising high above the mountain ranges around it, and known under the name Maha-bul-eshwur—from the temple at the source of the sacred river Krishna on its summit—is now the favorite summer retreat and sanatarium of the Bombay Presidency. Trim roads, laid out so as to exhibit the beauties of the scenery to the best advantage—pretty English-looking cottages, with brilliant gardens, and a considerable native town, are now the main features of the place; but at the period of our tale, it was uninhabited, except by a few Brahmins and devotees, who, attracted by the holiness of the spot, congregated around the ancient temple, and occupied the small village beside it. Otherwise the character of the wild scenery is unchanged. From points near the edges of the plateau, where mighty precipices of basalt descend sheer into forests of everlasting verdure and luxuriance, the eye ranges over a sea of rugged mountain-tops,—some, scathed and shattered peaks of barren rocks; others, with extensive flat summits, bounded by naked cliffs which, falling into deep gloomy ravines covered with dense forests, would seem inaccessible to man.

"To some readers of our tale, this scenery will be familiar; but to others it is almost impossible to convey by description any adequate idea of its peculiar character, or of the beauty of the ever-changing aërial effects, that vary in aspect almost as the spectator turns from one point to another. Often in early morning, as the sun rises over the lower mists, the naked peaks and precipices, standing apart like islands, glisten with rosy tints, while the mist itself, as yet dense and undisturbed, lies wrapped around their bases, filling every ravine and valley, and glittering like a sea of molten silver.

"Again, as the morning breeze rises in the valleys below, this vapour

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and associations—together with a description of the Linga temple of Mahableshwar at Gokarna in North Canara, from which the little shrine of Mahadeo, and thence all the hill and its surroundings, seem to have derived the name now so familiar in Bombay society and official correspondence.

There has recently been published a new handy little *Guide to Mahableshwar*; the original report on the hill by Dr. Murray, the expositor of its natural history, is now scarce.

breaks up slowly: circling round the mountain summits, lingering in wreaths among their glens and precipices, and clinging to the forests, until dissipated entirely by the fierce beams of the sun. Then, quivering under the fervid heat, long ridges of rugged valleys are spread out below, and range beyond range melts tenderly into a dim distance of sea and sky, scarcely separated in colour, yet showing the occasional sparkle of a sail like a faint cloud passing on the horizon. Most glorious of all, perhaps, is the evening, when in the rich colours of the fast-rising vapours, the mountains glow like fire, and peak and precipice, forest and glen, are bathed in gold and crimson light, or, as the light grows dimmer, shrouded in deep purple shadow, till they disappear in the gloom which quickly falls on all."

Pertabgarh

Somewhat to the south rises the mountain fastness of Pertabgarh, the stronghold of Sivaji, to which his emissaries lured the ill-fated Afzul Khan, the general of the Bijapur kingdom, who, as Grant Duff relates (albeit contradicted by some less noted authorities), was slain by a perfidious stroke from Sivaji himself.* We have now no concern with the truculent struggles which in bygone centuries have marked these romantic scenes; but there is a certain historical sequence between the grim story just alluded to, and the smiling scenes of British civilisation which the Mahableshwar season presents. It was a lineal descendant of Sivaji, the Rajah of Sattara, who, in 1820, in exchange for a lowland village, made over this plateau to the Bombay Government. This His Highness did, partly because of his strong liking for Sir John Malcolm, the Governor of the day, and in honour of whom he named the station Malcolm Peith. The Rajah also paid greater part of the cost incurred in forming the lake, which is now the principal source of the water-supply on the hill, and for fertilising the market gardens below, at the side of the Panchguni road, the produce of which conduces so much to the well-being of visitors. This lake is chiefly formed by damming up the Yenna river, the spare waters of which find their way to the south-eastern declivities of the hill, where, at Lingamalla, they further contribute to the maintenance of a coffee and cinchona plantation; and, when the abundance of water serves, furnish a picturesque though rather slender waterfall. These gardens, which are provided with a good garden-house, and appliances for the planting and nursing of plants,

Exchanged for a village, 1820.

The Lake.

Coffee plantation.

* For Grant Duff's historical account of this incident, see *History of the Mahrattas*, chapter v., *Times of India* one-volume edition, p. 78. For a dramatic account of it, see Meadows Taylor's *Tara*, chapter 78 (one-volume edition, pp. 442-3).

have been carried on for several years past with varying results, but, as is understood, with more advantage to botanical science than to the public revenues. The experiment has been rather an extensive one. The plantation contains nearly 20,000 cinchona trees of all sizes; so that if, as some think, its want of decided success has been mainly due to lack of continuous water-supply during the hot months, the failure must be regarded as a preventible one, and as reflecting blame somewhere.

Journey to Mahableshwar.

The usual and easiest, also the longest and most expensive, route to Mahableshwar from Bombay, is by rail to Poona 119 miles, thence by phaeton or tonga 74 miles along an excellent macadamised road; the final pull up the ghât from Wai being the only formidable or tedious part of the journey. The ancient and most obvious route to Mahableshwar is across Bombay harbour, by ferry steamer or country-boat, to Nagotna, proceeding a considerable distance up the river of this name, and then by horse—with bullock-cart for luggage—a distance of 70 miles, most of it up the mountain-sides. There is another old route by sea, river, and road—that by the Bankot or Savatri river in the Konkan, which, in the course of the 1874 season, was by modern improvement made easy and attractive. It is by the coasting steamer from Bombay to Dasgaun—a place on the above-named river within a few miles of the old river port of Mhar. The 100 miles' steamer voyage from Bombay is accomplished in one rather long day. From Dasgaun, near which is a good travellers' bungalow, a 40 miles' journey of good new road lands the visitor on the breezy heights of Mahableshwar. This road, which winds in and out, all round the grim fortress hill of Pertabgarh, and, by the spectator on 'Bombay' and 'Sydney' Points, may be traced for many miles amidst the ravines and terraces below, is considered rather a notable achievement by the Bombay P.W.D. As a public work, its revenue value is less notable than its convenience to the Bombay visitor, and the pleasure it may afford for easy-going tourists in search of the picturesque; but by it communication is gained with the road down the south-eastern side of the

ghât, 33 miles to Sattara, and it thus completes a good cart-road—almost the only practicable one between the sea and the centre of the Mahratta Deckan. The formidable character of the natural barrier thus surmounted may be readily inferred from the few figures which it remains for us to mention. At Mahableshwar—the highest point, or nearly so, of the Western Ghâts or Syhadri Range—the altitude is from 4,400 to 4,700 feet above the sea-level: the rise from the Konkan is abrupt, being quite 4,000 feet; but the ridge is only about 2,300 feet above the average level of the Deckan on its eastern declivity. The basalt, which is the prevailing stratum of all this part of India, is at this sanitarium, as also at Matheran, mostly covered with laterite or ferruginous clay. This is often blended with vegetable deposits, and forms rich brown soil. The mean annual temperature of Mahableshwar is 66°—of the hot season a little over 70° (in noon sun 104°), of the cold season 65° (in noon sun 97°). The chief natural phenomenon of the Mahableshwar climate is the rainfall, which, in 1874, was close on 300 inches, and has not unfrequently exceeded that. In 1871 it was as low as 200 inches. Rainfall.

It is suitable thus to mention the meteorological characteristics of Mahableshwar, by way of comparison with the remarkably different conditions which obtain at Panchguni, only twelve miles down the ghât on the north-eastern side, that being the Poona road. The crests of the ghât arrest so much of the monsoon discharge that, at this station, the rainfall is only 50 to 60 inches.* The same obstacle postpones in Panchguni the burst of the monsoon; so that

* The variations of the rainfall at different places in India cannot be easily borne in mind by the European reader who has not visited this country. On the eastern frontier of the Panjab, in the Kassia Hills, the average fall of rain during the three summer months is fifty-three feet; as much falls there in forty-eight hours as in England during a year (Dr. Buist). The following table will show the variations in this respect over extended areas:—

Eastern India and Bay of Bengal.	Height.	lat.	long.	Fall of rain.	Shores of Western India.	Height.	Fall of rain.
Cheerapoonja..	4,500	25°16'	91°43'	610 in.	Mahableshwur	4,500	248 in.
Sylhet	22	..	..	209 ,,	Attagherry ..	2,200	170 ,,
Tavoy	16	..	..	208 ,,	Kandalla	1,740	168 ,,
Maulmain	Sea-level	..	..	189 ,,	Untraymahay.	Nil'ry Hills	164 ,,
Sandowy..... ..	16	..	..	178 ,,	Dapoolee	....	138 ,,
Akyab'..... ..	18	..	..	155 ,,	Angara Kanh'y	Mal'bar Coast	124 ,,
Darjeeling	7,000	27°3'	88°18'	126 ,,	Cannanore....	Do.	121 ,,

At Matheran 460 inches of rain fell during one monsoon; the average

for invalids, and others who can afford to study what is pleasantest in climatic influence, sojourn at this humbler sanitarium for a fortnight or so after the fogs and the early, often drenching, showers of the monsoon have driven the mass of visitors from the paradise above, will be found beneficial and profitable. The annual rainfall at Panchguni is not only moderate, but this is distributed to some extent over the year. Thus, it is not only practicable, but pleasant, for English families to spend the rainy season at this sanitarium, where there are generally bungalows available. Great expectations were formerly cherished regarding Panchguni as a place suitable for a permanent Anglo-Indian settlement; but, of late years, its undoubtedly great advantages of climate, soil, and situation seem to have suffered neglect and undue disparagement. Nearly all the ordinary English vegetables can be grown here, and many European fruits. Children of Anglo-Indians thrive, and the aged enjoy immunity alike from the rigour of northern climes and the extremes of tropical seasons.

Khandalla. Khandalla is just on the outer edge of the ghâts, and, on the G. I. P. Railway, its station is the last on the famous "Bhore Ghât Incline." When Lanauli,

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fall is 360 (?) Dr. Buist quotes the following picturesque description by Dr. M'Cosh of the inundation of the Burrampootra, as affording an excellent idea of the general characteristics of Indian inundations in general:—

"The rainy season may be called the carnival of Assam; all the labours of the field are suspended; every one seems happy and contented; and lives luxuriously upon haunches of venison, or steaks of the hog or the buffaloe. The flood of Deucalion is in a great measure realized every year. The timid deer, exhausted by long swimming and exertion, is glad to take shelter in a cow-house or a cottage. The tiger and the buffaloe swim together in amity, and the elephant and her young with the wild hog and her sucklings. The native anchors his boat to his own roof-tree, performs his ablutions on his flooded hearth, and drags his net in his tobacco garden; where the oxen lately ploughed, they are swum across to higher pasture; where a field of grain a short time before waved in the rising sun, nought now waves but the muddy water; the sites of large villages are known only by their roofs above the stream; and the situations of others are pointed out only by a few palm trees weeping over the drowned and deserted foundations."—*Topography of Assam*, by John M'Cosh, Officiating 2nd Assistant Surgeon; Calcutta, 1846. The mud brought down by the Ganges alone in a single season is stated by Lyell to be fifty-six times the size of the Great Pyramid, or as much as a thousand Indiamen, discharging themselves daily, would deliver in the course of a twelvemonth. Besides the Ganges, the Burrampootra, and Irrawaddy on the East, the Krishna, Godavari, and Cauvery on the west side of the Bay of Bengal, the Indus, the Taptee, the Sabermuttee, the Mahi, and the Nerbudda debouching on the north-west of India, are all subject to enormous inundations, and bring similar contributions of solid matter to the sea.

the next station, is reached, three miles further on, the ridge has been passed, and the passenger will then observe that the streams run eastward, ultimately to join the great rivers of the Deckan which pour their floods into the Bay of Bengal. Khandalla, though only about the same height as Matheran, is much more in the midst of mountain scenery, and offers a greater change from the humid atmosphere of Bombay. On the other hand, it has few civilised appliances: the bungalows are few, and seldom in good repair; the visitors are few and generally make but a brief stay. As with Matheran, the climate is unpleasant from January to the beginning of March; thence until the close of May, when the clouds begin to afford shadow and moisture, the air is dry and the general absence of trees causes the heat to be felt unpleasantly during the day, though the nights are always cool enough for sleep. It is from October to December that Khandalla is to be desired: and, until near the middle of November, the absence of luxurious vegetation makes it preferable in several respects to Matheran, while there is sufficient verdure left for these few weeks after the monsoons to clothe the rugged hill-sides with beauty. Many of the views from this place are lovely. The prospect from the bungalow farthest from the station (now belonging to Mr. Byramji Jijibhoy), situated on a spur of the ghât, and perched high above the railway incline, is one of the finest in Western India. Scarcely inferior, except in extent, is the view from the barrack-hill, where, for some years past, with a contemptuous disregard of the gifts of Providence, good though old-fashioned barracks, sufficient, or nearly so, for two companies of European troops, have been left to stand empty season after season, until the hot weather of 1874, when invalids and 'details' were sent, principally from Poona, to derive re-invigoration from the mountain air and change of scene. It is believed that the experiment, if such it should be called, was successful; and there can be no doubt whatever that, if the Khandalla barracks were regularly and intelligently utilised, more especially in the hot season, the rate of military 'invaliding,' both from Bombay and Poona, would be sensibly diminished. Owing to some prejudice amongst the authorities concerned, the station has been

Climate.

Barracks at Khandalla.

a good deal neglected of late years, and some of the subsidiary buildings belonging to the barracks have fallen into disrepair ; but these could easily be supplemented. There is a neat little church on the hill, which affords a touch of English association ; and the excellent highway which passes through the village,—the great ghât road up to the Deccan on which Khandalla is situated—is a good specimen of the Bombay engineers' work, dating from the time of Sir John Malcolm. This road is in no wise superseded by the railway, which crosses and re-crosses it ; so that a good deal of passing country traffic prevents this sanitarium from feeling the excessive quietude which, from the very small number of bungalows, might be expected. Besides the mansion on the ghât already alluded to, there is a large substantial bungalow belonging to Sir Jamsetji Jijibhoy ; and, nestling under the ghât on the same ridge as the barracks, but far away from them, stands a good summer residence, under the shade of large casuarina trees, which was built by some Bombay Civilian long before Khandalla used to be frequented by visitors. The travellers' bungalow, which is within easy reach of the railway station, has generally been well kept, and two or three days may be spent there very comfortably.

Lanauli. Lanauli is also on the ghât road, which here becomes nearly level, and, being only about three miles distant, may be easily reached either by road or rail. While in temperature similar to Khandalla, the climate is generally more genial. There is a good deal of undulating grass-grown land ; and a piece of ancient forest is near where sheltered walks are found. The chief attraction about Lanauli is that it is the most convenient point of departure for visiting the Karli cave-temples, which are excavated in a hill side about four miles to the north of the station. The capitals of the pillars, and other sculptures at these caves, are more finished and elaborate than any other of their class, except those of Ellora and Ajunta, and, therefore, are as attractive to the ordinary visitor as to the learned antiquarian. Except temporarily at the railway station, there is little or no accommodation for European visitors to Lanauli, besides the one hotel ; but this is a good

Karli cave temples.

one, well kept, and is always available when notice is given beforehand. The G. I. P. Railway have here a large locomotive workshop, mainly for the repair of the ghât engines; and a considerable number of their *employés* are located here, in a climate which is generally pleasant and always healthy. G. I. P. Workshop.

Purundhur in the Deckan, situated twenty miles south-east from Poona, is more noted for its political history than for its advantages as a sanitarium, though these are not to be despised. It rises by a tolerably easy bridle-road, 1,700 feet from the plain around the summit, being rather more that 4,500 feet above sea-level. It is the highest point of the ridge, which, running eastward from the ghâts, terminates at Jejuri, six miles further. There are two old forts on the hill, and Purundhur has long been used as a sanitarium for British troops, but, as in many similar instances, less so of late years—the troubles of returns or red-tape having become more formidable than disease itself. The climate is cool, and the rainfall only about 20 inches. Of the history of Purundhur, it is sufficient to say here that it was amongst the first fortresses of which Sivaji possessed himself—in this instance, by stratagem. This was in 1647. About eight years later, his commander, Baji Purbhu, defended it for many weeks most obstinately against the Afghan and other forces of Aurangzib; but whilst the struggle was still doubtful, it was surrendered by Sivaji as one of twenty forts made over to the Moghal emperor by agreement. This was during the hesitating portion of the Mahratta leader's career.* In 1670 he set himself to re-capture this and other hill-fastnesses; and Purundhur was held by his descendants, the Rajahs of Sattara, until about 1715. H. H. Shahu made it over to Balaji Wishwanath, his Peishwa, the founder of the Brahman usurpation that obscured the regal power of Sattara, and eventually, by reason of Baji Rao's rapacity and truculence, brought down on the Deckan the strong arm of British power, which, except as regards the reinstated Sattara *raj*, finally overthrew the

The Deckan Hills.

Purundhur

Previous history.

* Grant Duff's *History of the Mahrattas*, chap. vi., pp. 92-4 (one-volume edition).

Mahrattas as an independent political force. It was at Purundhur in 1776 that—much to the chagrin of the Bombay Government—Colonel Upton's treaty with the Mahrattas was concluded, by which Salsette and the revenues of Broach were made over to the Company.* After the fall of the Peishwa in 1818, the hill and its forts were taken by a brigade of the Company's troops under Colonel Blacker, after a short but stoutly-contested siege.

Singarh.

Singarh ('the lion's den') is another fortified hill within easy distance (eleven miles) of Poona, the history of which belongs to the same period. The fort is said to have been built by one of the earlier Rajahs of Sattara. It was one of the twenty already alluded to as surrendered to the Moghals in 1665, and re-taken by Sivaji's valiant commander, Tannaji, in 1670. The story of its storming on that occasion is one of the most striking passages in Grant Duff's history.†

Previous history.

Colonel Blacker, in his account of his own campaign of sieges in 1818, describes its reduction by General Pritzler, mainly by artillery, when it finally fell into our hands. As a sanitarium, Singarh is as remarkable for the difficulty of ascent, as for the freshness of the air and salubrity of the climate enjoyed by those who scale its rocky heights—scaled generally in the passive fashion of being carried up in a chair, borne by well practised, sure-footed hillmen. The summit is 1,700 feet above Poona, and 4,200 feet above sea-level.

Mode of ascent.

Assirgarh.

Assirgarh, though remote from the districts under notice, belongs to the same class of fortified sanitaria as the two just mentioned, and its modern history is linked with the same events. It was here, or at a village close by, that the Peishwa, accompanied by his standard-bearer, the faithful Vinchurkur, after being hemmed in on every side, surrendered to Sir John Malcolm. The available area on the summit of the hill is very small; but it is constantly utilised as a sanitarium for the Bombay army, and is under a permanent Commandant. The hill rises abruptly a height of 750 feet above the plains or jungles below, and, except during a small portion of the year, the climate is pleasant and

Historical incidents.

* Grant Duff's *History of the Mahrattas*, chap. xxvii., pp. 392-4 (one-volume edition.)

† Id., chap. viii., pp. 108-10.

invigorating. The rock of Assirgarh is a detached portion of the Satpura Range.*

Having come so far west, we may here refer to Panchmari in the Central Provinces—a valuable military sanitarium, having an elevation of nearly 4,000 feet above sea-level. The nearest railway station is Bunkeri, about one hundred miles west of Jabalpur. Thirty miles of country road intervene between the railway and Panchmari, and the ground is much broken up by streams and nullahs; but the sanitarium (since some reforms in the conservancy have been carried out) is one of much importance, as being available to the several army corps scattered over the Central Provinces from Saugor to Kampti. Panchmari.

Nasik is about 100 miles from Bombay, just above the Thull Ghât Incline on the north-east line of the G. I. P. Railway. It is thus easily reached, and, being at an altitude of nearly 2,000 feet, for a considerable portion of the year the climate offers a salutary change, alike from the steamy heat of Bombay or the scorching winds of the Deckan stations further inland. Nasik is from ancient times a place of sacred resort for Hindus, second only to Benares. The holy stream of the Godaveri, which rises in the ghâts just to the eastward, is considered almost as efficacious as the Ganges for washing away the stain of sin, and restoring peace of soul to the conscience stricken devotee. The bathing-ghâts about the river brink are studded with temples, and Brahmanism is in full sway; but in a hill within a mile or two, are numerous Buddhist caves in fair preservation, and affording one more indication of the firm hold which this simpler faith once had over the masses of the Indian populations. Alike for the artist, the antiquarian, and the invalid, Nasik and its vicinity present numerous attractions. The rainfall is light, being a little over 20 inches, while at Egutpura—only about 25 miles west—the fall is often 100 inches. The station nearest to Nasik is Deolali, where are the extensive barracks and rest-houses used as the great arrival and departure depôt for nearly all the British troops who come to or leave India. *Nasik.* A sacred Hindu resort.

* For a full and interesting account of Assirgarh, see *Times of India*, November 5, 1873.

NORTHERN INDIA.

SIMLA.

Simla. What shall we say of Simla, the Himalayan ridge whence, during the greater part of the year, the Governor-General and his half-dozen Executive Councillors, aided by as many clever departmental Secretaries, supremely govern this vast peninsula, from Peshawur to Calcutta and Cape Comorin? *Route.* First we must sketch the route by which this earthly paradise can be reached by the voyager landing on the western shore of India. He will proceed by the G. I. P. Railway as far as it can take him, that is, to Jabalpur, where the E. I. Railway territory commences. Still pursuing the same north-easterly direction, he arrives at Allahabad; thence, turning sharp to the north-west, he passes Cawnpore, Agra, and so to Delhi, where he comes on the line of the S., P. and D. Railway, which takes him to Umballa—and so ends his railway journey of 1,370 miles, all of which, if so determined, he may accomplish in a trifle short of three days. But if not a Queen's messenger, or a claimant for a lucrative appointment, the traveller will do well to break his journey at Jabalpur, and at Cawnpore, Agra, or Delhi. At Umballa—which is about 30 miles short of the station for Sirhind, or 'Head of India'—the traveller must accept the usual method of hill journeying, on horseback, on a 'dâk-gharry' (posting carriage), or on the mail-cart. He now proceeds 38 miles along a hilly road, which brings him to Kalka, where the difficulties of the mountain-road fairly begin—as this station is on the lower part of the ridge where Simla stands. From Kalka—which is an important official station, we may remark in passing—the military sanitaria of Kassauli, Subathu, and Dagshai are easily reached. The traveller here must accept a rougher kind of wheeled carriage, or proceed on horseback, if not afraid of the hill-pony taking him over a 'khud' as the deep precipices at the roadside are called. If determined to be safe and take it comfortably, he will accept a 'jampan,' or lounging-chair carried by coolies. This mountain climb is nearly 60 miles as measured on the road, but by the pony 'dâk-tonga' it is accomplished in seven or eight

hours. Arrived at Simla, we are at an elevation of nearly 8,000 feet above sea-level, at a distance of more than 1,000 miles from Calcutta and 1,470 from Bombay. Having thus given our visitors instructions how to get to Simla—the travelling expenses alone being at least Rs. 150—we should tell him what to expect on arriving there; but the chief characteristics of Simla are so generally well known, and this seat of imperial rule has been described by so many facile pens, that we need not go into much detail here. Perhaps one of the most compendious and unbiassed accounts of the climate, customs, amenities, and public business of Simla, is that which may be culled from the pages of *The Abode of Snow*. Mr. Andrew Wilson, the author of this pleasant volume, went up this way in 1873 on his venturesome journey through the mid-Himalayan region, and thus observed Simla and its society as a sojourner, not as one of its periodical visitors whose too favorable testimony is sometimes open to suspicion. At some little risk of insequence, we quote the following passages from this book :— Description.

"But I now felt determined to make a closer acquaintance with these wondrous peaks—to move among them, upon them, and behind them; so I hurried from Masuri to Simla by the shortest route, that of the carriage-road from the foot of the hills through the Suwaliks to Saharanpur; thence by rail to Ambala, by carriage to Kalka, and from Kalka to Simla in a *jampan*, by the old road, which, however, is not the shortest way for that last section, because a mail-cart now runs along the new road. Ambala, and the roads thence to Simla, present a very lively scene in April, when the Governor-General, the Commander-in-Chief, the heads of the Supreme Government, their baggage and attendants, and the clerks of the different departments, are on their way up to the summer retreat of the Government of India. It is highly expedient for the traveller to avoid the days of the great rush, when it is impossible for him to find conveyance of any kind at any price—and I did so; but even coming in among the tagrag-and-bobtail,—if deputy commissioners and colonels commanding regiments—men so tremendous in their own spheres—may be thus profanely spoken of,—there was some difficulty in procuring carriage and bungalow accommodation; and there was plenty of amusing company,—from the ton-weight of the post-office official, who required twenty groaning coolies to carry him, to the dapper little lieutenant or assistant deputy commissioner who cantered lightly along parapetless roads skirting precipices; and from the heavy-browed sultana of some Gangetic station, whose stern look palpably interrogates the amount of your monthly *puggár*, to the more lily-like young Anglo-Indian dame or damsel, who darts at you a Parthian yet gentle glance, though shown 'more in the eyelids than the eyes,' as she trips from her *jampan* or Bareilly *dandi* into the travellers' bungalow.

"In the neighbourhood of Simla there is quite a collection of sanitariums, which are passed or seen by the visitors to that more famous place. The first of these, and usually the first stopping-place (or the night of those who go by the old bridle-road from Kalka, is Kassauli,

famous for its Himalayan beer, which is not unlike the ordinary beer of Munich. Kussauli is more rainy than Simla, more windy, and rather warmer, though not so high, and is chiefly occupied as a depôt for the convalescents of European regiments. Close to it rises the barren hill of Sonawar, where there is the (Sir Henry) Lawrence Asylum for boys and girls of European or mixed parentage, between 400 and 500 being usually supported and educated there at the expense of Government. Two other sanitariums, Dugshai (Dugshaie) and Subathu (Subathoo), are also military depôts; the latter having large barracks and houses with fine gardens and orchards. The British soldier improves greatly in strength and appearance on these heights; but it is said he does not appreciate the advantages of being placed upon them. He does not like having to do so much for himself as falls to his lot when he is sent to the mountains. He misses the Indian camp-followers, who treat him below as a Chota Lord Sahib; and, above all, he misses the varied life of the plains, and the amusement of the bazar. (pp. 44-7.)

"According to some people, and especially according to the house-proprietors of Calcutta, who view its attractions with natural disfavour, Simla is a very sinful place indeed; and the residence there, during summer, of the Viceroy and his members of Council, ought to be discouraged by a paternal Secretary of State for India. The 'Capua of India' is one of the terms which are applied to it; we hear sometimes of 'the revels upon Olympus;' and one of the papers seemed to imagine that to describe any official as 'a malingerer at Simla' was sufficient to blast his future life. Even the roses and rhododendrons, the strawberries and the peaches, of that 'Circean retreat,' come in for their share of moral condemnation, as contributing to the undeserved happiness of a thoughtless and voluptuous community. For this view there is some show of justification. Simla has no open law-courts to speak of, or shipping or mercantile business, or any of the thousand incidents which furnish so much matter to the newspapers of a great city. The large amount of important governmental business which is transacted there is seldom immediately made known, and is usually first communicated to the public in other places. Hence there is little for the newspaper correspondents to write about, except the gaieties of the place; and so the balls and picnics, the croquet and badminton parties, the flirtations and rumoured engagements, are given an importance which they do not actually possess, and assume an appearance as if the residents of Simla had nothing to do but to enjoy themselves and 'to chase the glowing hours with flying feet.' But, in the reality, the dissipation of Simla is not to be compared with the dissipation of a London season; and if the doings of any English provincial town or large watering-place in its season were as elaborately chronicled and looked up to and magnified, maliciously or otherwise, as those of the Indian Capua are, the record would be of a much more scandalous and more imposing kind. (pp. 50-1.)

"The hill on which Simla is situated was first made known by the visit to it in 1817 of the brothers Gerard, two Scotch officers who were engaged in the survey of the Sutlej valley; and the first house was built upon it in 1822 by the Political Agent of the district. About that latter year, it was purchased, by exchange, by the British Government, from the Rana Keonthul, and made into a regular sanitarium. The first Governor-General who visited it was Lord Amherst, in 1827. Jacquemont described it as having sixty houses for Europeans in 1831; and Lord Auckland was the first Governor-General to spend a summer there—that of 1841. The annexation of the Panjab gave a great impetus to the development of this hill-station. Lord Dalhousie liked to establish the head-quarters of his Government there in summer, because that allowed him to reside much during the rains in the drier region of Chini, which suited his health. Lord Lawrence accepted the Viceroyship on the express condition that he should be allowed to spend the summer on the hills, Simla being the most convenient spot; and thus the arrangement has continued, except that the exigencies of the Bengal

famine led the Supreme Government to remain in Calcutta this year. In the height of the season, Simla has now usually a population of about fifteen hundred Europeans, and as many thousand natives. In a former chapter I have briefly described its general appearance and surrounding scenery. One of its drawbacks is a deficiency in the supply of water; but this might easily be remedied, at some expense, and probably would be if the house-proprietors were assured that the Supreme Government intended to continue its summer residence there; though I do not quite see how that doubt should be allowed to have so much influence, because many of them argue that the example of Masuri has shown that Simla might flourish even if it were unvisited by any Government, and might thus secure a less uncertain income.

"The permanent residents of the place are enthusiastic in their praises of its winter climate, and that is really the only season of the year in which Simla is calculated to do much positive good to invalids, the cold then not being extreme, though it has been known to fall ten degrees below freezing-point, while the air is still, dry, and both invigorating and exhilarating; but it is as a retreat in the hot weather of April and May, and of the rains, that it is most used, and I do not know that much can be said in its praise as a sanitarium during that long season. Of course, it is a great thing to escape from the fiery heat of the Indian plains in April and May, and from their muggy oppressive warmth during the five succeeding months; but that is about the extent of the sanitary advantages of Simla in summer, and the climate then has serious drawbacks of its own. I derived no benefit from it, nor did any of the invalids there with whom I was acquainted; and its effects upon some of them were such that they had to leave before the stay they had marked out for themselves had been accomplished." (pp. 80-2.)

Whether it is politically fit and salutary, from an administrative point of view, for the Supreme Government of India to be regularly settled more than half of the year at this Himalayan station, are questions not to be discussed here. They have been, and will yet be freely discussed elsewhere, and not only in Calcutta, where, as may be supposed, the withdrawal of the viceregal *entourage* is felt as a local injury and personal wrong. But there is one Simla subject of controversy which, as it concerns, more or less, most of the Indian hill-resorts, should have some notice here. We allude to that anxiety of modern civilisation which it is convenient to speak of as conservancy. It has only been by degrees that these various hill retreats have become frequented or settled. The first visitors found themselves in the midst of nature's solitudes, so that in conservancy, as in some other matters, it became the habit to fall back on first principles. Gradually the bungalows and visitors increased; but still more rapidly do the followers and bazar population multiply. True, they leave with their masters at the close of each season; but they are creatures of habit, and each recurring influx of the migrating population trace

Neglect of Conservancy.

the same paths, and perpetuate the bad customs or gross neglect which, while sporadic, was comparatively harmless. Unless some energetic medical officer perceives these growing evils in time, and is fortunate to be well supported in his remedial regulations—luck by no means to be counted upon—the mischief becomes chronic, and in the last degree difficult to be overcome. Seldom is the lurking evil recognised, until in some bad season, when, allied to exceptional climatic influences, it begins to tell in sick lists and mortality statistics. This hill demon of defective conservancy and local neglect, poisoning the huts of the menial population, and often affecting the water-supply on which all classes depend, has heretofore shown its unwelcome presence in such unlikely places as Ootacamund in the south, and Nynee Tal in the north. Its grim warnings now stand confessed at Simla—though on the danger being first plainly mentioned during the season of 1875, it was laughed to scorn. How was it possible on such steep slopes, with such a searching rainfall, that any pestiferous substance could lodge, and so as to do any harm in such a gloriously pure atmosphere? Yet there was the painful fact: cholera first shewed itself amongst the crowded haunts of the temporary native population; then amongst subordinate Government servants; and, afterwards, first one and then another of the well-to-do European residents were claimed by the inexorable monitor. Pains were taken to check exaggerated reports, and even to keep back the facts relating to this inroad on the mountain paradise, These efforts were so far successful as to avert a panic. and prevent the stampede of visitors which at one time seemed imminent. Certain limited but energetic conservancy measures were taken, and these, aided by the drenching rains of July, restored for the time the normal health of the population, and re-assured Simla society. No complete figures have been published regarding this manifestation of endemic disease; but, judging roughly from the casualties mentioned in authentic form during the three months ending with July, the death-rate must have been so high as will perceptibly affect the annual bills of mortality.

Recent Cholera at Simla.

It must be remembered that the Government of India's mountain residence has not been singular in suffering from the peculiar and exceptional, though mild cholera visitation of 1875. From one end of India to the other, this disorder, along with its allied diseases, has manifested itself at hilly sites in a quite unusual proportion, though only to an ordinary extent in the plains. That skilful specialist the "Sanitary Commissioner with the Government of India," will in due time explain what peculiar atmospheric or telluric influences have been at work to prompt this extraordinary manifestation of choleraic activity at high altitudes. Meantime, the local and preventible causes which go far to account for the Simla visitation —the flux or matrix, as it were, by aid of which this malign agency has been enabled partially to overcome the natural hygenic mountain influences, have been recognised, and frankly though not loudly confessed. A committee, comprising all the talents needed to renovate the water-supply and establish an effective system of conservancy, has been appointed under supreme authority, and commenced work in earnest as the season closed. Some rather extensive plans of renovation, both as regards water-supply and conservancy, have been spoken of. To these large ideas, a certain forcible and somewhat unexpected objection has been taken. It has been pointed out that, because of the peculiar physical conformation and special climatic conditions to be dealt with, the sum required to bring Simla and its residences up to the standard of modern ideas of sanitation, would reach at least one million sterling. It is objected that to expend such a large sum as this, involving also the risk, perchance, of further outlay on a mountain-ridge far removed from the populations, the traffic, and the administrative business of India, would be a step of very doubtful propriety. The proposal to incur such an enormous expense on a remote Himalayan station, adds force, it is alleged, to the strong political objections which have always, more or less, been maintained against the Government of India's systematic seclusion at Simla. It is not for us to decide whether these objections outweigh the personal advantages—in health, energies,

Improvements intended to be effected.

and concentration of thought—which the Viceroy and his colleagues, with their assistants, are said to derive from their periodical residence at this attractive retreat. And it is quite certain that some strenuous effort will be made, before next season, to remove all proximate and readily perceptible causes of offence. One high sanitary authority is said to have advised that, for the space of three years at least, the station should be left to the uninterrupted operation of nature's own disinfectant forces. In reference to the scepticism sometimes expressed as regarding any probability of noxious elements accumulating on such a sloping site, open to all the cleansing influences of wind, rain, and snow, we must point out one significant circumstance—the character of the soil, in and around the station, is porous on the surface and retentive below. In the Sanitary Commissioner's report for 1872, it is remarked that the water-supply of Simla is "at all times very liable to contamination." He adds—"The springs afford a naturally excellent water; but, after every shower, this is more or less mixed with the drainage of the hill-sides, which are far from clean." It was stated that, up to that period, "the station has enjoyed a very remarkable immunity from the (cholera) disease." Doubtless, great pains will be taken to restore that immunity if possible—for Simla is now strong alike in social, political, and vested interests.

N. W. P. hill-stations.

The hill-stations in or adjacent to the North-West Provinces—as the territories under the Allahabad Lieutenant-Governor are absurdly designated—are so well known that little need be said here about them. They may be conveniently divided into two groups—those below, and, so to speak, allied with Simla (most of which have been already mentioned); and those more readily accessible from the valley of the Ganges. These last are chiefly comprised within the wide irregular upland valley of the Dehra Dun, this being an elevated and sheltered tract lying between the great barrier of the Himalaya on the north and east of it, and the Suwaliks on the south. These form the outer range of that vast mountainous

region, which, though intersected by many deep vales and all but fathomless gorges, extends not only to the abode of snow, but far away to the Central Asian 'Roof of the World.' In this group of the Dun, or Dhoon, sanitaria are comprised Dehra itself, Chakrata, Landour with Mussuri, Almora, Ranikhet, and the popular Nynee Tal—the latter being the chief refuge and resource from torrid heat for the greater number of European residents of Allahabad and the plains of the Jumna. As Mussuri is one of the many sites at one time or other advocated by Sir George Campbell for the formation of a perfect capital of India, it is desirable to give some good general idea of the Dehra district or province; this can best be done by quoting a few of the opening paragraphs from Mr. Williams's 'Memoir' of Dehra Dun (1874)* :—

"The Doon is really composed of two valleys; the one sloping down to the Jumna on the north-west, the other to the Ganges on the south-east. Their north-eastern and south-western boundaries are the Himalaya mountains and the Sewalik hills, respectively. Their united area is about 673 square miles, and they lie between lat. 30°—30° 32′, long. 77° 43′—78° 24′. The whole may be roughly described as a parallelogram forty-five miles long from the N.W. to the S.E., by fifteen broad from the N.E. to the S.W.

"The beauty of this region is proverbial, and takes the visitor from the plains by surprise. It is well wooded, undulating, and intersected with streams, some of which have a perennial flow of water throughout the whole of their course. The ridges between are, except in places where shingle crops up, covered with rich mould, nourishing a luxuriant vegetation. The trees and shrubs have all the green freshness of the European forests, whilst the mountains on the north, the hills on the south give a charming variety to the landscape. When describing the scenery, the French traveller Jacquemont hesitates between Baiti and the Oberland of Berne in the choice of an appropriate comparison for this lovely district.

"On the north-east the horizon is bounded by the lower, or Mussooree, range of the Himalaya, which opposite the town of Dehra bends back and encloses a portion of the valley in an immense amphitheatre. The lower spurs of chain are covered with dense forests; the loftier crests are, except in shady clefts and gorges, comparatively bare, but often support the rhododendron and the oak (*quercus incana*), besides other rare trees belonging to the temperate zone. Some of the peaks rise to a great height; the Great Trigonometrical Survey Office at Dehra is no less than 5,136 feet below the highest point of the sanitarium of Landour, being itself 2,323 feet above the level of the sea; and a few miles due east of Landour, on the road to Teeree, one peak attains an elevation of 8,565 feet.

"Running parallel with the Himalaya, the Sewaliks slope gently into the Doon, having a softness of outline strongly contrasting with their abruptness on the side facing the plains. Owing to the elevation of the valley, they seem mere hillocks by comparison with the range in the back-ground. They are clothed with a thick forest, chiefly

* *Historical and Statistical Memoir of Dehra Dun*, by G. R. C. Williams, M.A., Bengal Civil Service, Rurki; Thomason Engineering College Press, 1874.

composed of *sál* and *sain*, above which, on the higher crests, the pine (*pinus longifolia*) frequently raises its head, indicating the proximity of a cooler climate.

For all the strategic and political advantages which could be secured by making Mussuri the metropolitan city and fortress for all India, we must refer the reader to Mr (now Sir George) Campbell's "Modern India," 1858. There also will be fouud most that can be said on behalf of encouraging European colonisation on a large scale in this temperate sub-Himalayan region; but the reader would do well to compare the views of 1858 with the more matured and discriminating observations of Mr. Williams in 1874. The climate of these sanitaria, though removed from both extremes, fluctuates through many degrees. Thus at Mussuri the full range is from 27° to 80°; but the mean temperature from November to February is 50° to 42°. From March to October the mean is from 53° to 66°. Snow occasionally falls; rain is sometimes very heavy, but the rainfall for the year is not over an average of 80 inches. As vegetation thrives in the Dun, so animal life abounds; all kinds of game can be had from elephants to woodcocks, though the frequent and unregulated sporting excursions of the officers from the several military stations in and near the valley are thinning off alike the fiercer and more timid game.

Mussuri. Mussuri is 56 miles from Saharunpur, the nearest railway station on the S., P. and Delhi Railway; but the high-road approach is by way of Rurki where may be seen the very complete Government engineering works and College. One great recommendation of Mussuri is its comparatively equable temperature, ranging from 42° in January to 68° in July. During a considerable portion of the year, the range is between 50° and 60°, which affords a delightful and bracing climate; but there is the drawback of the site being very much exposed to the beating of the south-west monsoon. Speaking of the exposed situation of Mussuri, because of the abrupt rise of the mountain from the plains beneath, Mr. Andrew Wilson remarks that, looking at the settlement from beneath, it "has a very curious appearance. Many of its houses are distinctly visible along the ridges; but they are so very high up, and so immediately

above one, as to suggest that we are in for something like the labour and the experience of Jack and the bean-stalk." As one comforting compensation for such a climb, it may be noted that this traveller avows he found here, in "the Himalayan," the best hotel he had met with in India, which is saying a good deal. For, at all, or nearly all, the much-frequented hill-resorts we have mentioned, there are one and sometimes two hotels where persons of a tolerably reasonable disposition find themselves comfortably cared for.

Nynee Tal. Nynee Tal is approached from the Moradabad terminus (as yet) of the Oude and Rohélkand Railway, whence it is distant about 63 miles of rather stiff hill journey. Sometimes Nynee is approached from Baréli further east on the same railway, but at a distance of 76 miles. The total travelling distance of this sanitarium, from Bombay by way of Allahabad, is from twelve to thirteen hundred miles, according as the Baréli or Moradabad station is aimed at. It is 7,000 feet above sea-level, and enjoys a fine climate the greater part of the year. The lake (*tal*), which gives half the name, adds greatly to the picturesqueness, variety, and salubrity of this charming hill-station. There is a not inconsiderable permanent population now settled at Nynee, and all the usual buildings and resources of Indian stations are maintained. In social and political status, its characteristics have been thus neatly hit off by a newspaper chronicler :—

"It is Simla seen through the wrong end of the telescope. It has its little viceroy (Sir W. Muir), and its little commander-in-chief (General Olpherts).* The little court has little levées and little drawing-rooms, little garden parties and little state dinners; and the consequence of all this is, that it conducts itself with great decorum like bigger places. Socially, I say, it is Simla in miniature; but in other respects it is very different. Instead of being perched on the topmost ridge of a mountain, like a chimney-stack on a house-top, it is situated on the shores of a lovely lake embosomed among the bosky hills. Instead of being a long summer day's ride from the plain, it is only a morning's canter. While Simla is horsey and disports itself at Annandale, Nynee Tal is aquatic and gambols on the lake."

Almora. Almora, 22 miles north of Nynee but 1,500 feet lower in altitude, is the chief place of the mountain province of Kumaon. Near this fort was the scene

* This was in 1872: now in 1875 the Civil and Military Chiefs are Sir John Strachey and General R. O. Bright.

of a sharp and decisive struggle in 1816 between the British and Gurkhas; and it is still regarded as a place of some strategic importance, it being near one of the practical routes across or through the Himalayas.

Ranikhet. Ranikhet, about 25 miles west of Almora, is in many respects more suitable as a sanitarium for European troops, and is being extensively utilised. There is here far more of tolerably level ground for barracks and parade-ground. There are at this station always two or three batteries of artillery and companies of Sappers and Miners, besides head-quarters of a European regiment, and other troops. There is a good deal of light forest about these hills, and plenty of water. Some very competent observers have dared to aver that the Supreme Government might do better at Ranikhet than at Simla.

Chakrata. Chakrata is nearly 30 miles to the north-west of Mussuri, and close on the Panjab border. It is only a small station, but is in good repute for salubriousness.

Mari. The chief sanitaria in the Panjab besides those already named in connection with Simla, are Mari, Sialkot, and Dalhousie. The first of these is nearly 8,000 feet above sea-level, and, being so far north, enjoys a large share of really cold weather. About 800 European troops are generally stationed there; and for the European residents of Lahore, Mari is of inestimable value as a place of retreat from the scorching heat and summer dust-storms of the Panjab capital. It is about 40 miles north of Rawalpindi, making altogether a journey of nearly 200 miles from Lahore; but the station is at an elevation of nearly 7,500 feet, and affords an invigorating climate even in the summer months. The soil is fertile, so that European fruit and vegetable can be produced in abundance. When the Northern State Railway shall be completed to Rawalpindi, as it is hoped may be the case before Christmas 1876, Mari will be readily accessible from most parts of the Panjab, and its importance as a resort for the civil population will be much enhanced. Rawalpindi is, to Peshawar, the next in importance of the military stations of Northern India; but as its elevation is only 1,700 feet

above sea-level, it cannot be classed among sanitaria. Wazirabad, 60 miles north of Lahore, is at present the terminal station of the Northern Railway, and this affords rather easier access than heretofore to Sialkot, which is nearly 30 miles to the north-east of that station. At Sialkot there is a civil population of over 25,000, and there are generally from 1,500 to 2,000 European troops here, including artillery and cavalry. Dalhousie, which has already been referred to in connection with the Dhurmsala and the Kangra Valley, is about 60 miles due east of Sialkot and considerably higher, being 8,700 feet above sea-level. This station is near oned of the routes into Cashmere, and is amist or near to splendid scenery, both of hill and valley. *Dalhousie.*

As to the trans-Indus sanitaria, it seems almost a mockery to speak of Chirat as standing in that relation to Peshawar, which, because of its trying climate in the summer and autumn, so sadly needs a place of refuge and restoration. But of Chirat it must make the best; and as Peshawar, though in a deeply encircled plain, is 1,000 feet above sea-level, the extra six or seven hundred which that narrow ridge affords is by no means to be despised. As to Kohat, Bunnu, and Abbotabad, there can be no pity on the score of health for those whose lot is cast amongst those elevated northern hills. *Chirat, &c.*

BENGAL.

Of the three presidency cities of India, Calcutta is the one which, because of its situation and climate, most needs some ready refuge for its European residents—some accessible hill-resort where

Want of convenient sanitaria in Bengal.

"All the cares that make
"Town-dwelling men despair"

can be forgotten for awhile, until the mind recovers its tension and the frame its tone. Yet Calcutta is, of the three cities, the most unfortunate in this respect. For its Anglo-Indian denizens and dwellers in Lower Bengal, there is no sanitarium, in the proper sense of that term, short of Darjiling. But that haven is in the Himalayas, about 350 miles from Calcutta "as the crow flies;" and, except for Lieutenant-Governors and their staff, there is no royal road or aërial path to this threshold of the great snowy range. Thanks to the 1874 famine in Behar—though the connection may not be clear to everyone—a rail-road is being made, which will enable the washed-out denizens of the Ditch, and also the tea-planters of Assam and their friends, to pass with much ease, and in a tolerable direct line northward, from the enervating delta of the Ganges to the invigorating atmosphere of Darjiling, and the soul-inspiring visions of the lofty Kailas, the Indian Immaus. This "Northern Bengal" line is one of the metre-gauge state lines, which, while it must be an inestimable improvement on the present dâk and bullock route, will amply suffice for all the traffic that can afford railway rates between the Ganges and the gate of Thibet Proper, which it has long been hoped that Darjiling may prove to be in an effective and commercial, as well as geographical, sense. In one of the earliest official "Reports on Darjiling" by Mr. Justice W. B. Jackson, C.S., of the Bengal Sudder Court in 1854,—earliest excepting those of the enthusiastic Dr. Campbell, who, in company with "Robert Napier of the Engineers," was the pioneer of British enterprise and influence in this sub-Himalayan region—we find this opening into Thibet thus concisely described :—

Darjiling.

The Northern Bengal Railway.

"The road is well known from Darjiling to Lassa, and I have spoken here with several who have travelled it; the distance is estimated at a month's journey; and the two large towns, Phari, with a population of 4,000 inhabitants, and Geanchi Shubar, with a population of 20,000, lie on the route."

The imports by that ingress were then (1854) valued at half a lakh (£5,000) annually; but, since that time, the hand of the Pekin authorities has been stretched towards the Llama rulers, in order to check communication with British territories; and Sir Richard Temple, who is just groping or knocking at this gate of Thibet, is not likely to find it flung open to his plausible persuasions.

But it is chiefly with the character of Darjiling as a sanitarium, and its accessibility to the Bengal capital, that we have to do. The road principally used proceeds from the north bank of the Ganges, opposite Rajmahál on the E. I. Railway. It was long supposed that when a railway should be made for Darjiling, it would proceed from that point, or thirty miles further up from Caragola, where, from Sahibgunge, there is a better ferry crossing; but the "Northern Bengal," now well-nigh finished, proceeds from opposite Kushtea, the western terminus of the Eastern Bengal Railway, thereby securing much more direct communication with Calcutta than the East Indian Railway could have afforded. The total railway journey to Darjiling from Calcutta, when the new line is opened, will be about 370 miles. Now, what advantages, in respect of climate and altitude, will thus be brought within reach of Government servants and the well-to-do people of Lower Bengal? The 'average altitude' of the Darjiling district is spoken of as from 4,000 to 9,000 feet above sea-level. The convalescent station for troops was placed 800 feet higher than Darjiling itself, which is at an altitude of about 7,000 feet, situated within twelve miles of the northern frontier, and twenty-four miles from the southern foot of the hills. The mean temperature is 54°, and the range from 39° in January to 63½° in July: the rainfall is 120 inches. Though the extension of tea-planting has been far greater in Assam, and also more successful in the Kangra and other western sub-Himalayan valleys, the growth of the industry in Darjiling has been very remarkable. In 1853, Dr. Campbell boasted that there were in the district 2,000 *plants*—some mere seedlings, though the shrubs included several that were twelve years old.

Tea-plantations in Darjiling.

In 1872 the number of acres taken up for tea cultivation within the two Darjiling districts was 133,024, of which 14,639 were under active cultivation. The produce of marketable tea in that year was estimated at three millions of pounds. The out-turn of all the Bengal tea-plantations was reckoned at 6,150,764 lbs.*

Cost of journey.

From Caragola on the Ganges to Darjiling—a distance of above 260 miles—the cost of a special carriage is Rs. 120. The East Indian Railway fare from Calcutta to Sahibgunge (22 miles) is Rs. 20½. To Kushtea, on the Eastern Bengal Railway, the fare is Rs. 7. Enjoyment of the grand scenery and bracing atmosphere of Darjiling is beyond the pecuniary means, or unsuited to the ailments of thousands of Anglo-Indians in Bengal, who would be glad to avail themselves of some retreat within moderate distance, and to secure a change less trying to the enfeebled constitution than is that of the sub-Himalayan climate. For those to whom expense is not an obstacle, there is the alternative of a river voyage up the Brahmaputra, by Goalundo on the Eastern Bengal Railway, to Assam, where, at Gowhatti or Debrugarh, a genial and refreshing sojourn may often be found salutary. To Debrugarh, the steamer fare from Goalundo is Rs. 170, and to Gowhatti Rs. 108. Assam presents a considerable variety of cool and temperate climate; the rapid progress of the tea-planting industry within its borders, and in Cachar on its southern border, attracts many Anglo-Indians in that direction; while the detachment of Assam from Bengal, and its establishment as a separate Commissionership under the energetic and intelligent management of Colonel R. H. Keatinge, throws new life into all the affairs of this too long neglected north-eastern province.

* See Sir G. Campbell's admirable Bengal Administration Report for 1872-3, compiled in great measure by Mr. H. J. S. Cotton, C.S.

Calcutta Residents.

For those who, for sake of health or recreation, care only to take a journey by rail, there are two places which, during a considerable portion of the year, offer sufficient change of scene and air to afford perceptible relief in many of the ailments to which European residents of Calcutta are liable. These are—Monghyr, on the Ganges, 300 miles distant from Calcutta by the main line of the East Indian Railway; and Ranigunge, 120 miles on the Chord Line. The latter place is situated on the border of the great coal district of central Bengal, in and about which several interesting excursions may be made, while the hilly country beyond the Damuda, visible from thence, presents a tempting prospect to the lovers of sport. As to Monghyr, though its site is only 160 feet above sea-level, and the mean temperature is 77°—with a range of from 61° in January to 89° in May—its climate is one that affords unmistakeable relief from that of Calcutta in its bad months. There are also, some little distance to the south of Monghyr, granite hills of a few hundred feet elevation. *Monghyr and Ranigunge.*

The two possible, but not as yet practicable hill sanitaria for Lower Bengal are Parisnath and Hazaribagh, both in western Bengal, and accessible (after a fashion) from the Chord Line of the East Indian Railway. As to the latter station, the natural advantages which it offers as a retreat from the depressing humid heat of the Ganges delta are undeniable. It has been not only well known, but utilised for two or three generations past as a salubrious military station, and a penitentiary for long-term European prisoners. But here, as in so many other Indian sanitaria, neglect and carelessness in matters of local conservancy have gone far to neutralise the natural value of the site; and towards the close of 1874, about the time of His Excellency Lord Northbrook's visit there, it was announced that no European regiment would hereafter be stationed at Hazaribagh. Strong objections against this were raised by the Calcutta press, and eventually it was decided to retain one or two companies there. The elevation of the ridge or plateau—almost the first rise of any *Hazaribagh.*

kind in a line of 200 miles north-west from Calcutta—is about 2,000 feet, and the mean temperature for the year is nearly 79°, going down to 62½° in January. The place is reached by a good road of about 60 miles from the Kurhurbali branch of the East Indian Railway line, at 220 miles from Calcutta.

Its possible utility.

Were there any adequate aptitude of co-operation amongst the residents of the capital, so as to join in the erection of a few bungalows and maintenance of an hotel at Hazaribagh, that place might become the means of rescuing many residents in Bengal from the first attacks of tropical disease, and enabling many invalids to postpone or avert the necessity of a costly and inconvenient journey to Europe.

This condition precedent—that of co-operant public action for social advantage—applies with still more force, and would be more abundantly rewarded by any successful effort to utilise the really fine hill site of Parasnath. This mountain (4,624 feet above the sea-level)—for such it appears by reason of its almost abrupt rise on its south-eastern side from the dead level of Bengal—is the termination of the chain of hills which geographically separates that province from Behar. The old Trunk Road passes it, about the 230th mile from Calcutta ; but in these days the approach is generally by rail. This is by the Chord Line of the E. I. Railway, on its branch to the coaly station of Kurhurbali. From this to the base of the hill is about 16 miles. Parasnath can also be approached from the south-east by the Barakur coal branch, and the high road to Hazaribagh already referred to. The former of these stations is about 230 miles from Calcutta, the latter 144 ; and either can be reached under six hours, after which about twelve hours by horse-dâk will suffice to scale the ascent of sacred Parasnath. The hill is sacred so far as having been at one time claimed as almost like the Sinai of the Hindustani Jains, and its name is given from the last of their *Tirthankars*, or sanctified men—a native of Benares, who, after spending his latter days on this mountain, from its highest peak soared to the empyrean and was absorbed in the Divine infinity. The Jain temples, of which there are twenty small ones, on the hill add to its picturesqueness, and

Parasnath.

Route.

are on the south-eastern side, where neither shrine nor worshippers are in the way of European visitors, whose most favorable location is on the north and west. The temperature of the summit is reported as at 54° in February, 81° in May, and 73° in June when the monsoon winds and mists have set in—these figures indicating a difference of from 13° to 20° cooler than the plain below. In September and October, when this retreat would be of most value to the Calcutta citizen, we may, from the above observations, estimate it at 65° to 70°—the nights being very much cooler. All accounts agree in extolling the salubrity and freshness of the air; while the views from the top, which extend as much as 80 miles in some directions, are varied and beautiful. And here, from amongst various descriptions of Parasnath to choose from, we will give that by the matter-of-fact geologist Dr. Oldham :— Climate. Scenery.

"Doubling round the base of Parasnath Hill on the west side, we ascended to the summit from Muddubund, and were immensely delighted with the glorious scenery of the mountain itself, and a striking contrast which it afforded, after having been for weeks among the almost unbroken plains of Bengal. The wonderful beauty and richness of its thickly-wooded sides, broken up by the cool grey of the projecting rocks, whose precipitous cliffs cast their deep shadows around, with the almost boundless view from its summits, stretching away over the billowy tides to the west and north-west, and the unbroken plains to the east; the clearness of the atmosphere above, while all below is shrouded in a hazy mist called up by the over-heated air of the plains, all combined to render it a scene of amazing beauty, and to impress one forcibly with the idea of the desirability of such a resort being made accessible to Europeans as a relief from the destructive glare and broiling heats of Calcutta. From Parasnath we passed northwards, through a country composed entirely of gneissose rocks with intercalated beds of hornblende slates and hornblende rocks, with occasional granite, and thick quartzose veins, and trap dykes to Kurhurbari coal-field."

It may be asked, then, why do we not hear of the depressed and enervated citizens of Calcutta flocking to this delightful health-giving atmosphere, year by year, from April to June and from August to September? We are not bound to find an answer to this question; but it is tolerably safe to say that not one in a thousand of the European residents of Calcutta have scaled the cool heights of Parasnath, though nearly all of them have seen the mountain, and been refreshed by the mere sight of it as they have passed on the railway. In April of 1860, it was visited by the Lieutenant-Governor of Bengal, who, though accidentally burnt out of his thatched tents on the

20th of May, returned to the summit by the end of the month, and stayed on after the rains had set in, attending to his business and correspondence to the end of June. This experiment seems to have decided the authorities to try Parasnath as a military sanitarium, and, in 1862, buildings were put in hand, where from 30 to 80 'convalescents' were lodged for four or five seasons. There was little difference in the doctors' favourable reports, the men improved in health; but there were such frivolous complaints as want of space to exercise, although there are six miles of road to run up and down whenever rainy weather checks roaming over the hill-side. The fact was that "Tommy Atkins" found it too far from the forbidden pleasures of the bazar, and declared it was "like a penitentiary." The departmental authorities complained of the disproportionate expense on returns and staff attendance, so in the end—that is, 1868—the military evacuated Parasnath, making over Rs. 80,000 worth of buildings to the Public Works Department. "Convalescents" from Fort William, Barrackpur, Dinapur, and other stations in Bengal, must now go to Darjiling—when they can get there. The buildings, including officers' bungalows as well as barracks, have not, we presume, been allowed to fall to ruin, but are available for any parties who may be willing to take up their beds and travel thither. The natural advantages of Parasnath are as real as ever, and, in its practicable relation to the severe needs of the Calcutta population, we cannot do better than repeat what was written of it by Dr. Thompson of that city in 1856 :—

Used as a military sanitarium.

"The air on the hill is always delightful, fresh, elastic, and exhilarating, and offers the greatest contrast to the steamy heat of Calcutta. A small station there would afford a most grateful retreat from the town, and I sincerely hope the scheme of a sanitarium may be carried out.

"Dr. Anderson and I agreed in opinion, in November last, that a sanitarium on Parasnath would be of great value for individuals from the damp, relaxing climate of Bengal. The climate is dry and bracing, and the temperature always 10 or 12 degrees lower than in Calcutta."

The Public Works Department would, no doubt, be glad to sell or lease what is left of the property; and, if there were adequate cohesion in Calcutta society for public purposes, a company or club would long since have been formed for securing hygenic

Its possible utility.

advantages, which would be as life from the dead for many in that city. Besides, it must be remembered that Tope Chini, Dunri, and other places round the foot of Parasnath, which are over 1,000 feet above sea-level, offer excellent sites; while a few miles away is the Dunwa Pass amidst fine scenery, at an elevation of 1,500 feet.

SOUTHERN INDIA.

Ootacamund.

The Madras presidency is fortunate in the possession of elevated tracts of fertile land abounding in picturesque scenery, and easily accessible from the presidency city, and the plains generally. Chiefly we speak of the Nilghiris, or Blue Mountains, in the upper valleys of which nestles Ootacamund, perhaps the most complete and salubrious of all the sanitaria in India, not excepting Simla. The highest peak of the range is Doda-betta, 8,760 feet above sea-level, Ootacamund being 7,414.* Coonoor, the western station of the Nilghiris, is "just a mile" above the level of the sea. Koteghiri, another small station of the district, more especially concerned with tea-planting, is 500 feet higher than Coonoor. On the northern slopes of this great midland mountain group is the Wynaad, the extensive agricultural district where European coffee-planters have added another staple to India's export list. In 1860 the value of coffee imported into the United Kingdom from British India was £188,532; in 1869 it was £1,111,000. Further to the north, again, is the hilly country of Mysore, including the valuable and healthy station of Bangalore which is at an elevation of 3,000 feet above sea-level. The Nilghiris, on their Malabar side, blend with the Western Ghâts and extend to within 40 miles of the sea. On their eastern ascent they are upwards of 200 miles from the Coromandel Coast, the nearest port on which is Negapatam. From Madras city and the famous Fort St. George, Ootacamund is over 350 miles away; but as 300 of this are travelled in one long day by railway, the visitor from the eastern city thinks little of the

Coonoor.

Koteghiri.

Wynaad.

Bangalore.

* *The Neilgherries*, edited by Dr. John Shortt; Higginbotham, Madras, 1870.—*Neilgherry Guide;* Ootacamund, 1872.

journey ; and the Madras Government is definitively established there four months in the year. With an energetic and life-enjoying Governor like Lord Napier of Ettrick, Ootacamund loses nothing of its natural importance. Perhaps the grave Duke of Buckingham may give heed to the, as yet, unavailing remonstrances of the Madras editors and leave Ootacamund to the pleasure-seekers and planters alone. The annual mean temperature "on the summit of the Nilghiris has been fixed at 58° 68′—a mean that is seldom experienced on any other range in India." —(Shortt). The rainfall at Ootacamund, from 1867 to 1872, shews a range from 34·10 to 66·35 ; but these figures being from the two years 1867-68, the wide variation excites suspicion as to the correctness of the register ; though in 1848-49 it is entered as 33·44 and next year it was 56½ inches. At Wellington, which is a purely military sanitarium on an extensive scale ten miles south-west of Ootacamund, the rainfall register in 1872 was 32½ inches, falling on 139 days ; and the mean temperature was 62° 7′, the highest (in May) being 79° 2′.

Wellington

The Nilghiris are usually reached from Bombay by way of the sea voyage to Beypore, thence by rail 100 miles to Coimbatore or Pathanore, and then, past Coonoor, 60 miles of hill-road to Ootacamund by horse or tonga, which last division of the journey costs Rs. 55 to Rs. 80, according to the size of conveyance required. Since November 1873, when the G. I. P. Railway was joined with the Madras line at Raichore, some travellers from Bombay or Poona have chosen that route to the Nilghiris. From Bombay by rail to where the hill ascent begins, is an enormous journey, the miles run being 1,010 ; but the advantage of this route is its being available during the monsoon, and to all who dread *mal du mer*. From Calcutta, the easy route to the Nilghiris is by steamer to Madras, and thence as already described. It should be mentioned that an excellent and compendious *Guide to the Nilghiris* has been published by the *South of India Observer* press at Ootacamund. The scope of our present notice does not include any special reference to the natural history or productive capabilities of this remarkable mountain

Route to Nilghiris.

region which, on its southern limit, is eleven degrees north of the equator ; but we may safely affirm that everything which is known on these subjects may be learned from the "Report on the Agricultural Condition, Capabilities, and Prospects of the Nilghiri District" recently drawn up by Mr. W. R. Robertson, the indefatigable "Superintendent of Farms" under the Madras Government.

Since the Nilghiris have been rendered so readily accessible, the other hill-resorts in the Madras presidency, formerly in great favour, the Shevaroys and the Pulneys, are comparatively forgotten. They both may be regarded as part of the Eastern Ghâts, the former being amongst ranges of 5,000 to 6,000 feet above sea-level, and the latter in the neighbourhood of peaks that attain 8,000 feet. Of the Shevaroys, many Madrasees of the last generation, and also their children, retain very grateful recollections as a place of refuge from the fierce heats of the cities and low-lying districts. These hills are very easily reached from the station before arriving at Salem on the Madras Railway, at 190 miles from the Coromandel capital. The Pulneys lie much further south, being in a line due south-east from Trichinopoly, whence they will be readily reached from the Dindigul station of the railway now in progress towards Madura and Tinnevelly. When this line is completed, the Pulneys can be also easily approached from Tuticorin on the south-east by the regular steamers to that port.

Route to Pulneys.

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Old Crusted (5 years in bottle)	Original seal.	33	—
Invalids' Wine	Gold capsule.	24	26
Dessert Wine	Black seal.	20	22
A very good sound Wine	Red seal	16	18

SPIRITS.

		Per Doz.
Cognac, the finest imported, old pale	Black capsule	26
" in Flasks		14
" superior old pale	Yellow capsule	24

BURGUNDIES—RED.

Chambertin, *the élite of Burgundies*	Red cap.	28	30
Nuits, *a high class Wine*	„	22	24
Volnay, *an excellent Dinner Wine*	„	18	21
Beaune, „ „ „		16	—

WHITE.

Chablis (La Moutonne)	White cap.	22	24
„ light	„	15	17

CHAMPAGNE.

(Wachter's ; Cutler, Palmer's).

Cutler, Palmer's extra Finest, extra dry Sparkling	42	44
Wachter and Co.'s "Prince of Wales'" Brand	42	44
* Also per Hamper of 24 half-pints, Rs. 24.		
Giesler and Co.'s	42	44
Fine Dry Sparkling, good bouquet, Silver foil	36	38
Good Sparkling Star	32	35
Carte Blanche, Sibadey's Brands, particularly dry, and specially suited for Breakfast and Ball purposes	24	28

GERMAN WINES.

Nonpareil Sparkling Hock and Moselle	35	37
Sparkling Hock and Moselle, Muscatef	29	31
Moselle (Still) Braunberger	24	26
Hock „ Johannisberger	40	43
„ „ Rudesheimer	24	26
„ „ Hochheimer	21	23
„ „ Laubenheimer	16	19
Stein-Wein in Bocksbeutel	24	—

SHERRIES, &c.

		Per Doz. Qts.
Amontillado, A-1, extra quality, rare old	Gold seal	34
Amontillado, choice and superior	Black seal	31
Amoroso, very choice, full flavored, soft pale		24
Oloroso, full-bodied, straw color	Green seal	21
Vino Puro, very pale, dry and delicate	Blue seal	22
Vino Fino, pale	Brown seal	20
Pale, medium colour	Yellow seal	18
Vino de Pasto, remarkably pale and very dry	Pink seal	17
A good Dinner Wine	White seal	14
Marsala, Virgin, pale, fine flavor		14
Madeira, East India, very superior		34
Madeira, excellent Wine		28
Wood Tap, for Jars Rs. 1-8		
Plated Tap „ „ 3-8		
SACRAMENTAL WINE		22

„ in Flasks	„		12
„ soft and pale	White capsule	..	18
„ in Flasks	„	..	10
„ pale, very good. White label	Blue capsule	....	16
„ in Glass-stoppered Barrel Bottles			
„ in Flasks			
Finest Old Jamaica Rum, 1st quality			14
Gin, London Old Tom, 1st quality	White capsule	..	13
Whisky, Irish, 1st quality	„	..	15
„ Scotch, 1st quality	„	..	15
Geneva, in flasks			9

ASSORTED LIQUEURS.

Each Case containing 12 Pint bottles, viz.—

White Curaçao, Anti-Choléra, Cherry Brandy, Crême de Thé, White Anisette, Curaçao Sec, Crême de Vanille, Noyau de Martinique, Oranges Amères, Persicot, Roses sans Epines, Maraschino — *Per Case.* 22

LIQUEURS.

Per 1 doz. QUARTS and 2 doz. PINTS.

	Rupees. Qts.	Pts.
Curaçao, finest Amsterdam, Orange or White	37	39
Maraschino di Zara, best	33	35
Noyau	35	—
Cherry Brandy, best Copenhagen	25	28
Orange Bitters, best	17	—
Kill the Crow Bitters	24	—

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Our Own Bottling.

In Casks of 3 doz. Qts. Rs. 5-8 per doz. *Net Cash* ..... } *Duties included.*
„ „ of 6 „ Pts. „ 3-12 „ „ ..... }

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Bottled by the London Cooper Company.

In Casks of 3 doz. Qts. Rs. 5-8 per doz. *Net Cash* ..... } *Duties included.*
„ „ of 6 „ Pts. „ 3-8 „ „ ..... }

The above quotations do not include Customs Duties, Town Dues, or Forwarding Charges. Duties on Claret and Burgundies, Rs. 2 per case ; on Sherries, Ports, and Still Hocks, Rs. 3 per case ; on Sparkling Wines, Rs. 5 per case. On Spirits and Liqueurs, Rs. 8 per case. Town Duties As. 8 per case.

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MESSRS. BISQUIT, DUBOUCHE & Co.'S

SHIPPING,

Who stand third on the list of Brandy Exporters.

* One Star	Rs.	21	4	per dozen.
* One Star, in Glass-stoppered Barrel Bottles	,,	22	8	,,
* One Star's Crystal Barrel 2 gallon = 1 dozen	,,	25	0	each.
* One Star, in Flasks, in cases of 2 dozen each	,,	23	0	per case.
* One Star, in Half-Flasks, in cases of 4 dozen each	Rs.	25	0	per case.
** Two Stars	,,	24	0	per dozen.
*** Three Stars	,,	27	0	,,
**** Four Stars, Extra Superior	,,	38	0	,,

5 per cent. Discount allowed for Cash.

The above quotations are not "in Bond," but include charges to our Godown, with the exception of the enhanced Customs Duty to be added at Rs. 2 per case.

Messes, Clubs, Co-operative Societies, and Traders will be liberally treated.

CUTLER, PALMER & Co., *Sole Agents in India.*

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SHERRIES AND COGNACS in Wood and Wicker Jars.

The demand for these has led us to increase our importations of the following descriptions in Wood and Jars, with and without lock Taps. The following are our quotations IN BOND:—

SHERRIES.

	Per Jar. 4 gallons.	Octave. 13½ gallons.	Quarter-Cask. 27 gallons.	Hhd. 54 gallons.
WHITE SEAL	Rs. 26	Rs. 63	Rs. 117	Rs. 224
VINO DE PASTO	,, 29	,, 82	,, 155	,, 300
YELLOW SEAL	,, 30	,, 86	,, 162	,, 318
VINO FINO	,, 35	,, 100	,, 195	,, 375
VINO PURO	,, 37	,, 107	,, 206	,, 403

COGNACS.

	Per gallon. Rs.	as.
BLACK CAP	9	0
YELLOW CAP	7	0
WHITE CAP	5	4
BLUE CAP	4	

	Rs.	as.	
Empty Jars for ditto 1 gallon	1	0	each.
2 Gallons ,, ,,	1	8	,,
4 Gallons ,, ,,	2	0	,,

The Jars can be returned for re-filling. We keep stocks of bright Sherries and Cognacs in Wood for this special purpose. In such case the cost of Jar will be allowed, deducting all outlay for carriage to Godown.

The Quarter Casks, Octaves, and Jars are very convenient for Families, and will be found most economical. Jars with Wood Taps Rs. 1½, or with Plated Taps Rs. 3½.

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In introducing their Brand somewhat particularly to the Indian public, MESSRS. WACHTER & Co., who have for many years enjoyed extensive patronage in the United Kingdom, the Australian and other markets, desire to call special attention to a few of a series of flattering communications they have been honoured by receiving from the Gentleman of Her Majesty's Cellars. To these they have added a few extracts from the journals of the day, and with such Testimonials they venture confidently to ask for a share of the Indian trade, satisfied that they will be able to meet the wishes of the consumer through the agency of the oldest Wine House in India, MESSRS. CUTLER, PALMER & Co., whose long acquaintance with the country, its requirements, &c., will place this beyond a doubt.

MESSRS. WACHTER & CIE. would add that as the Prince of Wales is shortly to visit India, they have shipped ample supplies to meet the demands of those whose privilege it will be to entertain H. R. H.

MESSRS. WACHTER & Co. have also been instructed to place on board the "SERAPIS" a supply for the use of H. R. H. the PRINCE OF WALES; while MESSRS. CUTLER, PALMER & Co. will hold, in a few weeks, stocks of the same Wines, which they confidently anticipate will be as much appreciated in India as they are in England.

WITH reference to the above, C., P. & Co. have the pleasure to inform their Constituents that a FURTHER SUPPLY of this celebrated BRAND is to hand ex s.s. "Hindoostan." Price in Bond Rs. 42 per doz. qts., and Rs. 44 per 2 doz. pts.

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WINE MERCHANTS AND GENERAL AGENTS,
MADRAS.

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Stout.—Guiness' bottled by Daukes, and Barclay's in qts. and pts.

Bass' Ale in Wood.—Hogsheads and Barrels. This brand is the best for bottling purposes.

Younger's Ale.—In qts. and pts.

German Beer.—In qts. and pts., light, bright, and clear, admirably suited for the Indian climate

Creaming Cyder.—Daukes and Co.'s, in qts. and pts.

Sherries.—Sandeman's yellow seal ; Robinson's green seal, very fair.
ZAMIN BROTHERS.—A matured pale amber Dinner Sherry ; seal, a yellow crown. This Sherry is well worthy a trial. Pale Dry Dinner red seal ; Dry Dinner. Superior Dry Dinner (very good) ; V. S., D. P. red seal ; Manzanilla red seal ; Amontillado, very superior No. 1 blue seal ; Vino de Pasto blue seal ; White seal No. 1, a perfectly pure very dry wine, the most popular in the Presidency ; Ysasi Brown Sherry, green seal ; Ysasi dark brown, white seal ; Tod Heatley's Pale (blue seal) ; Sherry Dry (black seal) ; Gledstane's superior No. 3, blue capsule ; Sherry No. 2, white capsule ; Sherries yellow do. very good ; Choice Amontillado, capsule magenta. These wines have been selected with great care and shipped by Cuningham and Co. of a quality guaranteed and especially adapted for Madras. Rates have been reduced. Royal Mess Pale, green seal ; Yellow seal. The celebrated Red Cross brandy.

Bordeaux in Quarts and Pints—Adapted for Breakfast. Bordeaux yellow seal fine ; Bordeaux—McD. & Co.'s red seal ; Leognan white label ; St. Emelion ; St. Estephe (Dunkin's) ; St Julien Medoc (Beyerman's) ; St. Estephe. La Rose (blue and gold label) ; Margaux.

Old Dinner Clarets in Quarts and Pints.—Chat D'Arcin ; Chat Malescat Margaux ; Leoville Pink and Silver Label* Chat Paujeaux, Grand vin de Chat Rauzan ; Chat La Rose, Pink and Silver Label* (a very choice Wine) ; Lagrange, 1858 ; Chat Dausac Co.'s D'Estournel, capsuled ; Chat Margaux (1854) ; Chat Larivaux (1858) ; Chat Lafitte.

Old and Rare Dinner Wines.—Chat Leoville ; Chat Latour (1848) Grand vin de, very old ; Chat Margaux, very superior ; Chat Lafitte 1858, Grand vin de ; Braune Mouton (1858), in qts. and pts.

Gledstane's Claret.—Yellow seal ; Leoville, No. 1 red seal, a very old after-dinner wine, in quarts and pints.
McDOWELL & Co.'s CELEBRATED LIMA, in quarts and pints.

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Sparkling Moselle.—V. D., very fine dry Moselle, Blue label ; Nonpareil ; Kupferberger's Moselle ; in qts. and pts.

Sparkling Hock.—Green and silver label Ehrenbreitstein, very superior, in qts. and pts.

Sparkling Burgundy.—Chambertin ; Red superior ; in quarts.

Sparkling Chablis.—A sound light Sparkling Burgundy, in qts. and pts.

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OFFICIATING PROFESSOR GOVERNMENT COLLEGE, DELHI.

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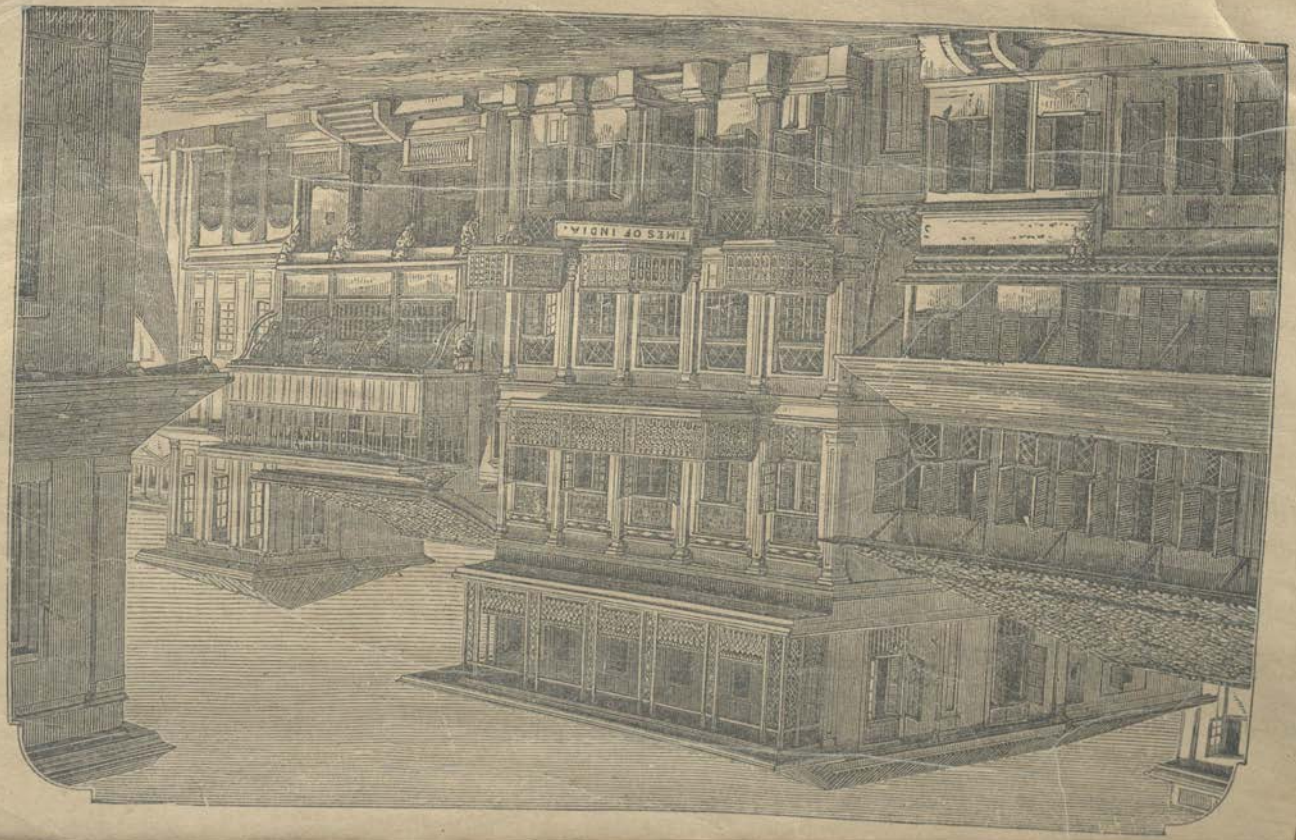
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